DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A35EU Revision 16 Airbus A300, Model B2-1A A300, Model B2-1C A300, Model B4-2C A300, Model B2K-3C A300, Model B4-103 A300, Model B2-203 A300, Model B4-203 A310, Model 221 A310, Model 222 A310, Model 203 A310, Model 322 A310, Model 324 A310, Model 304 A300, Model B4-601 A300, Model B4-603 A300, Model B4-620 A300, Model B4-605R A300, Model B4-622R A300, Model F4-605R A310, Model 325 A300, Model F4-622R A310, Model 204 January 24, 2002

TYPE CERTIFICATE DATA SHEET No. A35EU

This Data Sheet which is part of Type Certificate No. A35EU prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

<u>Type Certificate Holder.</u> Airbus

1, rond-point Maurice Bellonte

31707 Blagnac, France

Type Certificate Holder Record Name change from Airbus Industrie to Airbus January 2002

To be considered eligible for operation in the United States, each aircraft manufactured under this type certificate must be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting foreign civil airworthiness authority which states (in the English language): This aircraft conforms to its U.S. type design (Type Certificate Number A35EU) and is in a condition for safe operation.

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c). The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is FAR Sections 21.183(d) or 21.183(b).

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Notwithstanding that the FAR referenced in the above paragraph does not specifically address or require a foreign civil airworthiness authority certification, such certification is the only practical way for an applicant to show, and the Federal Aviation Administration (FAA) to find conformity to the FAA-approved type design and condition for safe operation. Additional guidance is contained in FAA Advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engine, Propellers, and Related Products Imported into the United States.

I. Type 300, Model B2-1A, (Transport Category Airplane), approved May 30, 1974.

Engines.

2 - General Electric Turbofan, Model CF6-50A (Data Sheet FAA: No E 23 EA3 - Part B)

APU.

Airesearch TS CP 700-5 (TSO C77 8C 6203)

Fuel.

(a) The following fuels are eligible for engines and APU:

MIL-T-5624H Grades JP-4 or JP-5

AST-MD-1655-65T Grades Jet A, A1 (JP1) and Jet B AST-ES-2-74 Grades Jet A, A1 and Jet B

French specifications are:

Air 3404 Air 3407 Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engines and APU:
 - (1) Phillips PFA-55MB or anti-icing additive to specifications MIL-I-27686E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Bibor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.

(a) The following oils are eligible for the CF6-50 engine: Synthetic type conforming to GE Specifications D 50 T F1, Classes A or B.

(GE Service Bulletin No. 79-1 lists approved brand oils)

(b) The following oil is eligible for the APU:See Maintenance Manual TS CP 70, Chap. 49.20.00 Table 303.

Engine Limits.

Oil.

Static thrust, sea level 48,400 lb Takeoff (5 min) - (flat to 87°F) 46,300 lb

Maximum continuous (flat to 85°F)

Maximum permissible engine rotor operating speeds.

N1 (Low compressor) 4,068 rpm (118.5%) N2 (High compressor) 10,761 rpm (109.5%)

Maximum permissible engine temperature. Turbine exhaust gas temperature at turbine outlet

Takeoff (5 min) 945°C
Maximum continuous 910°C
Maximum acceleration (2 min) 960°C

Starting:

up to 40 sec. 1,652°F (900°C) above 40 sec. 1,382°F (750°C) Page 3 of 54 A35EU

Oil maximum permissible outlet temperature

Continuous operation 320°F (160°C) Transient operation listed to 15 min. 347°F (175°C)

APU Limits. Power rating

Maximum at sea level 142 hp.

Maximum rotor speeds

Airspeed Limits (IAS).

V_{MO} (Maximum Operating) up to 25,400 ft 360 K.

M_{MO} (Maximum Operating) at and over 25,400 ft 0.86 M

V_A (Maneuvering)

See DGAC Approved Airplane Flight Manual

V_{FE}		Slat Positions		Flap Positions
	Takeoff	20	0	250 K.
	Takeoff	20	8	215 K.
	Approach	20	15	205 K.
	Landing	25	25	180 K.
	Enroute	20	0	210 K.
				(M=0.47)
v_{LO}	(Landing Gear)			
Lo	Extension			270 K.
	Retraction			240 K.
v_{LE}	(Landing Gear Extended)			270 K. (M=0.59)
				(101-0.39)

 $V_{MC} \quad \begin{array}{ll} \text{(Minimum Control) Speed with the Critical Engine Inoperative} \\ \text{In flight - V}_{MCA} \quad \quad & 110 \text{ KIAS} \quad 105 \text{ KCAS} \\ \text{Takeoff and Landing - V}_{MCG} \quad \quad & 106 \text{ KIAS} \quad 101.5 \text{ KCAS} \\ \end{array}$

V (Tires Limitation) 182.5 KCAS

<u>C.G. Range.</u>(Landing Gear Extended)

	FOR		RD	A	FT	
Gross Weight		Enroute &	Takeoff	Enroute &	Takeoff	
		Landing		Landing		
137,900 kg	304,017 lb	18% MAC				
to	То	(Sta.1162.82)	All	All	All	
125,000 kg	275,575 lb		weights	weights	weights	
125,000 kg	275,575 lb	Linear varia-	18% MAC	35% MAC	33% MAC	
to	To	tion between	(Sta.	(Sta.	(Sta.	
120,000 kg	264,550 lb	18% MAC and	1162.82)	1202.13)	1201.92)	
		15% MAC				
Below	Below	15% MAC	1			
120,000 kg	264,550 lb	(Sta.1155.07)				
T 1'					-	

Landing gear retraction moment is 68,686 in lb., gear retraction moves c.g. forward.

I.	Type 300.	Model B2-1A,	(Transport	Category A	Airplane)	(cont'd)
	I , pc 500,	1110001 D2 111,	(II tall b p o I t	Cutto goi j	m pranc,	(COIIC G)

Maximum Weights.		<u>kg</u>	<u>lb</u>	
	Taxi Weight	137,900	304,017	
	Takeoff Weight	137,000	302,033	
	Landing Weight	127,500	281,089	
	Zero Fuel Weight	116,500	256,838	
	Gear Jacking Weight	137,000	302,033	

Minimum Crew. For all Flights: Pilot, Copilot and Flight Engineer.

Maximum Passengers. 345 - Based on compliance with FAR 25 emergency exit requirements.

Emergency evacuation demonstration of 25.803 (c) has been performed with 330 passengers. See DGAC approved interior arrangement drawing for maximum passenger

capacity approved for each airplane as delivered.

Maximum Baggage. Forward freight compartment with containers:

12 x 2,830 lb.

Middle freight compartment with containers:

8 x 2,830 lb.

Aft freight compartment:

Maximum loading: 5,512 lb.

Fuel Capacity. Fuel Tank Capacity (lb)

	Usable Fue	l (6.6 lb/gal)	
Location			Arm
			(inches)
	Preselector	Tank high Level	
	Setting cut-off	Sensor cut-off	
	(lb)	(US gal)	
Outboard 1	7,716	1,219	1327.04
Outboard 2	7,716	1,219	1327.04
Inboard 1	29,762	4,593	1156.88
Inboard 2	29,762	4,593	1156.88
Total	74,956	11,624	

Fuel Management. Fuel must be loaded symmetrically in outboard tanks first; fuel must be used from

inboard tanks first. Maximum allowable wing fuel asymmetry is 8,820 lb.

Engine oil capacity 24.4 lb/engine usable (at 8.1 lb/gal.) with engine moment arm Oil Capacity.

1011.10 in.

40,000 ft. Maximum Operating Altitude.

The basic required equipment as prescribed in the applicable Federal Aviation Equipment.

Regulations must be installed. Airbus equipment list document AI/V 339/75 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In addition the following is required:

DGAC Approved Airplane Flight Manual

Other Information. See "Data Pertinent to All A300 Models (except the A300B4-600, A300B4-600R and

A300F4-600R Series)"

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II. Type A300, Model B2-1C (Transport Category Airplane), approved June 19, 1975.

Engines.

2 - General Electric Turbofan, Model CF6-50C (Data Sheet FAA No.

FAA E 23 EA 3 part B)

APU.

Airsearch TS CP 700-5 (TSO C77 SC 6203)

Fuel.

(a) The following fuels are eligible for engines and APU:

MIL-T-5624H Grades JP-4 or JP-5

AST-MD-1655-65T Grades Jet A, A1 (JP-1) and Jet B AST-ES-2-74 Grades Jet A, A1 and Jet B

French specifications are:

Air 3404 Air 3407

Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engine and APU:
 - (1) Phillips PFA-55MB or anti-icing additive to specifications MIL-I-27686E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.

(a) The following oils are eligible for the CF6-50 engine.

Synthetic type conforming to GE specification D 50 T F1,

Classes A or B. (GE Service Bulletin No. 79-1 lists approved brand oils).

(b) The following oil is eligible for the APU:

See Maintenance Manual TSCP 700, Chap. 49.20.00 Table 303

Engine Limits.

Oil.

Static thrust, sea level

Takeoff (5 min) - (Flat to 86°F) 50,400 lb Maximum continuous (Flat to 85°F) 46,300 lb

Maximum permissible engine rotor operating speeds

 N_1 (Low compressor) 4,068 rpm (118.5%) N_2 (High compressor) 10,761 rpm (109.5%)

Maximum permissible engine temperature
Turbine exhaust gas temperature at turbine outlet

Takeoff (5 min) 945°C
Maximum Continuous 910°C
Maximum acceleration (2 min) 960°C

Starting:

Up to 40 sec. 1,652°F (900°C) Above 40 sec. 1,382°F (750°C)

Oil Maximum permissible outlet temperature

Continuous operation 320°F (160°C)

Transient operation limited

to 15 min. 347°F (175°C)

II.	Type A300.	Model B2-1C	Transport	Category	Airplane).	approved June	19.	1975.

APU Limits.	Power rating	
	Maximum at sea level	142 hp.
	Maximum rotor speeds	20.010 (110%)
	Low pressure speed (N_1)	30,910 rpm (110%)
	High pressure speed (N ₂)	38,845 rpm (110%)
	Maximum exhaust gas	
	temperature	1,085°F (585°C)
Airspeed Limits (IAS).	V _{MO} (Maximum Operating)	
	up to 25,400 ft	360 K.
	M _{MO} (Maximum Operating)	
	at and over 25,400 ft	0.86 M
	V _A (Maneuvering)	
	See DGAC Approved Airplane Fligh	t Manual

V_{FE}	Slat Positions	Flap F	Positions
Takeoff	20	0	250 K.
Takeoff	20	8	215 K.
Approach	20	15	205 K.
Landing	25	25	180 K.
Enroute	20	0	210 K.
			(M=0.47)
V _{LO} (Landin	ng Gear)		
Extension			270 K.
Retraction			240 K.
V _{LE} (Landin	ng Gear Extended)		270 K. (M=0.59)

 $V_{\mbox{MC}}$ (Minimum Control Speed with the Critical

Engine Inoperative)
In flight - V_{MCA} 110 KIAS 105 KCAS

Takeoff and Landing - V_{MCG} 106 KIAS 101.5 KCAS

(Tires Limitation) 182.5 KCAS

C.G. Range. (Landing Gear Extended)

	FORWA		RD	A	AFT
Gross Weight		Enroute &	Takeoff	Enroute &	Takeoff
		Landing		Landing	
137,900 kg	304,017 lb	18% MAC			
to	To	(Sta.1162.82)	All	All	All
125,000 kg	275,575 lb		weights	weights	weights
125,000 kg	275,575 lb	Linear varia-	18% MAC	35% MAC	33% MAC
to	To	tion between	(Sta.	(Sta.	(Sta.
120,000 kg	264,550 lb	18% MAC and	1162.82)	1202.13)	1201.92)
		15% MAC			
Below	Below	15% MAC			
120,000 kg	264,550 lb	(Sta.1162.82)			
. 1.				c	1

Landing gear retraction moment is 68,686 in lb., gear retraction moves c.g. forward.

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			VAI	RIANT 02
Maximum Weights.	BASI	C MODEL	with	mod 1357
	kg	lb	kg	lb
Taxi Weight	137,900	304,017	142,900	315,040
Takeoff Weight	137,000	302,033	142,000	313,056
Landing Weight	127,500	281,089	130,000	286,601
Zero Fuel Weight	116,500	256,838	120,500	265,657
Gear Jacking Weight	137,000	302,033	142,000	313,056

Minimum Crew. For all Flights: Pilot, Copilot and Flight Engineer

<u>Maximum Passengers.</u> 345 - Based on compliance with FAR 25 emergency exit requirements.

Emergency evacuation demonstration of 25.803(c) has been performed with 330 passengers. See DGAC approved interior arrangement drawing for maximum passenger capacity approved for each airplane as delivered.

Maximum Baggage. Forward freight compartment with containers:

12 x 2,830 lb.

Middle freight compartment with containers:

8 x 2,830 lb.

Aft freight compartment:

Maximum loading: 5,512 lb.

Fuel Capacity. Fuel Tank Capacity (lb)

	Usable Fue		
Location			Arm
			(inches)
	Preselector	Tank high Level	
	Setting cut-off	Sensor cut-off	
	(lb)	(US gal)	
Outboard 1	7,716	1,219	1327.04
Outboard 2	7,716	1,219	1327.04
Inboard 1	29,762	4,593	1156.88
Inboard 2	29,762 4,593		1156.88
Total	74,956	11,624	

<u>Fuel Management.</u> Fuel must be loaded symmetrically in outboard tanks first; fuel must be used from

inboard tanks first. Maximum allowable wing fuel asymmetry is 8,820 lb.

Oil Capacity. Engine oil capacity 24.4 lb/engine usable (at 8.1 lb/gal) with engine moment arm

1011.10 in.

Maximum Operating Altitude. 40,000 ft.

Equipment. The basic required equipment as prescribed in the applicable Federal Aviation

Regulations must be installed. Airbus equipment list document AI/V 341/75 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In addition the following is required.

DGAC-approved Airplane Flight Manual approved June 19, 1975.

Other Information. See "Data Pertinent to all A300 Models (except the A300B4-600,

A300B4-600R and A300F4-600R series)"

III. Type A300, Model B4-2C (Transport Category Airplane), approved June 30, 1976.

Engine.

2 - General Electric Turbofan, Model CF6-50C (Data Sheet FAA No. FAA E 23 EA3 part B)

APU.

Airesearch TS CP 700-5 (TSOC77 SC 6203)

Fuel.

(a) The following fuels are eligible for engines and APU:

MIL-T-5624 H Grades JP-4 or JP-5 AST-MD-1655-65T Grades Jet A, A1 (JP-1) and Jet B

AST-ES-2-74 Grades Jet A, A1 and Jet B

French specifications are:

Air 3404 Air 3407 Air 3405

With JP-4 or Jet B fuel, the following limitation apply

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used as approved fuels for engine and APU:
 - (1) Phillips PFA-55MB or anti-icing additive to specifications MIL-I-27686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive)
 - (3) Shell ASA anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.

(a) The following oils are eligible for the CF6-50 Engines:
 Synthetic type conforming to GE specification D 50 T F1,
 Classes A or B. (GE Service Bulletin No. 79-1 lists approved brand oils.)

(b) The following oil is eligible for APU: See Maintenance Manual TSCP 700, Chap. 49.20.00 Table 303

Engine Limits.

Oil.

Static thrust, sea level

Takeoff (5 Min) - (flat to 86°F) 50,400 lb Maximum Continuous (flat to 86°F) 46,300 lb

Maximum permissible engine rotor

operating speeds

 N_1 (Low Compressor) 4,068 rpm (118.5%) N_2 (Low Compressor) 10,761 rpm (109.5%)

Maximum permissible engine temperature

Turbine exhaust gas temperature

at turbine outlet

Takeoff (5 min) 945°C
Maximum Continuous 910°C
Maximum acceleration (2 min) 960°C

Starting:

Up to 40 Sec. 1652°F (900°C) Above 40 Sec. 1382°F (750°C) Page 9 of 54 A35EU

III. Type A300, Model B4-2C (Transport Category Airplane), (cont'd)

Oil Maximum permissible outlet temperature

Continuous operation 320°F (160°C) Transient operation limited to 15 min. 347°F (175°C)

APU Limits. Power rating

Maximum at sea level 142 hp.

Maximum rotor speeds

Airspeed Limits (IAS).

	BASIC MODEL	VARIANTS 02, 03 and 14
Max. Takeoff Weight	150,000 kg	157,500 kg
V _{MO} (Maximum Operating)	360K	345 K
Up to	25,400 ft	25,000 ft
M _{MO} (Maximum Operating)	0.86	0.86/0.82 (See Note 4)
At and over	25,400 ft	25,000 ft

V_A (Maneuvering) See DGAC Approved Airplane Flight Manual

V_{FE}	Slat Position	Flat	Positions
Takeoff	16	0	250 K.
Takeoff & Approach	16	8	215 K.
Takeoff, Approach			
land	16	15	205 K.
Landing	25	25	180 K.
Enroute	16	0	210 K.
			(M=0.47)
V _{I,O} (Landing Gear)			
Extension	270 K.		
Retraction	240 K.		
V _{LE} (Landing Gear Extend	ded)		270 K.
			(M=0.59)
VMC (Minimum Control S	Speed with the Crit	tical	

V_{MC} (Minimum Control Speed with the Critical

Engine Inoperative)

 $\begin{array}{lll} \text{In flight - V}_{MCG} & \text{110 KIAS} & \text{105 KCAS} \\ \text{Takeoff and Landing - V}_{MCG} & \text{106 KIAS} & \text{101.5 KCAS} \end{array}$

V (Tires Limitation) 195.5 KCAS

III. Type A300, Model B4-2C (Transport Category Airplane), (cont'd)

C.G. Range. (Landing Gear Extended)

		FORWAR	D	1	AFT
Gross Weight		Enroute &	Takeoff	Enroute &	Takeoff
		Landing		Landing	
Max taxi	Max taxi	18% MAC			
to	To	(Sta.1162.82)	All	All	All
128,000 kg	282,187 lb		weights	weights	weights
128,000 kg	282,187 lb	Linear varia-	18% MAC	35% MAC	33% MAC
to	To	tion between	(Sta.	(Sta.	(Sta.
122,000 kg	268,960 lb	18% MAC and	1162.82)	1202.13)	1201.83)
		15% MAC			
Below	Below	15% MAC	7		
122,000 kg	268,960 lb	(Sta.1155.07)			

Landing gear retraction moment is 74,772 in lb., gear retraction moves c.g. forward.

Maximum Weights.

	Basic Mo	odel	Variant 0		Variant 03	3 with 52 & 2032	Variant 1 mod 619	
	kg	lb	kg	lb	kg	lb	kg	lb
Taxi Weight		332,672		349,206	158,400	349,206		349,206
Takeoff Weight	150,000	330,687	157,500	347,222	157,500	347,222	157,500	347,222
Landing Weight	133,000	293,210	133,000	293,210	134,000	295,410	134,000	295,410
Zero Fuel Weight	122,000	268,960	122,000	268,960	124,000	273,370	126,000	277,780
Gear Jacking Weight	150,000	330,687	157,500	347,222	157,500	347,222	157,500	347,222

Minimum Crew.

For all Flights: Pilot, Copilot and Flight Engineer

Maximum Passengers.

345 - Based on compliance with FAR 25 emergency exit requirements. Emergency evacuation demonstration of 25.803(c) has been performed with 330 passengers. See DGAC approved interior arrangement drawing for maximum passenger capacity approved for each airplane as delivered.

Maximum Baggage.

Forward freight compartment: max admissible load 23,980 lb.

- With containers: 12 x 2,030 lb. or

6 x 5,660 lb. when Mod. 1844 is incorporated

- A maximum container weight of 3,500 lb each side or 7000 lb both sides is permitted at station 22, 23 and 24 when Mod. 2317 is incorporated.
- With pallets: 4 x 8,300 lb.
- Split engine transport:
- When Mod. 2001 is incorporated
- Maximum weight of each pallet must not exceed 8,200 lb.
- Pallets, engine stands and pallet net must be in accordance with specification AI/TI-431/77

 $\label{eq:max-admissible} \mbox{ Middle freight compartment: } \mbox{ max admissible load 23,980 lb.}$

with containers 8 x 2,830 lb or 4 x 5,660 lb. when Mod. 1844 is incorporated

A maximum of 3,500 lb. each side or 7,000 lb. both sides is permitted at station 42 when Mod. 0470 is incorporated and at station 42 when Mod. 2317 is incorporated.

Aft freight compartment: Maximum loading 5,512 lb.

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III. Type A300, Model B4-2C (Transport Category Airplane), (cont'd)

Fuel Capacity.

Usable fuel tank capacity (lb) - Density 6.6 lb./US gal.

	Without Mod 1664		Without 1	Mod 1664
Location Arm (in.)	Preselector Cutoff (lb)	Tank high level sensor cutoff lb/U.S. gal	Preselector cutoff (lb)	Tank high level sensor cutoff lb/U.S. gal
Outboard 1 1327.04	7,716	7,942 1,217	7,710	7,994 1,225
Outboard 2 1327.04	7,716	7,942 1,217	7,710	79,941 1,225
Inboard 1 1156.88	29,762	29,791 4,565	29,760	30,281 4,640
Inboard 2 1156.88	29,762	29,791 4,565	29,760	30,281 4,640
Central 1106.10	24,251	24,701 3,785	29,760	30,346 4,650
Total	99,207	100,167 15,349	104,700	106,896 16,380

<u>Fuel Management.</u> Fuel must be loaded symmetrically in outboard tanks first; fuel must be used from

inboard tanks first. Maximum allowable wing fuel asymmetry is 8,820 lb.

Oil Capacity. Engine oil capacity 24.4 lb/engine usable (at 8.1 lb/gal.) with engine moment arm

1011.10 in.

Maximum Operating Altitude. 40,000 ft.

Equipment. The basic required equipment as prescribed in the applicable Federal Aviation

Regulations must be installed. Airbus equipment list document AI/V 333/75 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In addition the following is

required:

DGAC-Approved Airplane Flight Manual.

Other Information. See "Data Pertinent to All 300 Model (except the A300B4-600, A300B4-600R and

A300F4-600R series)"

IV. Type A300, Model B2K-3C (Transport Category Airplane) approved June 30, 1976.

Engines.

2 - General Electric Turbofan, Model CF6-50C (Data Sheet FAA No. FAA E 23 EA3 part B)

APU.

Airesearch TS CP 700-5 (TSO C77 SC6203)

Fuel.

(a) The following fuels are eligible for engines and APU.

MIL-T-5624 H Grades JP-4 or JP-5

AST-MD-1655-65T Grades Jet A, A1 (JP-1) and Jet B AST-TS-2-74 Grades Jet A, A1 and Jet B

French specifications are:

Air 3404

Air 3407 Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from outboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engine and APU:
 - (1) Phillips PFA-55MB or anti-icing additive to specifications MIL-I-27686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.

(a) The following oils are eligible for the CF6-50 engine: Synthetic type conforming to GE specification D 50 T F1, Classes A or B. (GE Service Bulletin No. 79-1 list approved brand oils).

(b) The following oil is eligible for APU: See Maintenance Manual TSCP 700, Chap. 49.20.00 Table 303.

Engine Limits.

Oil.

Static thrust, sea level

Takeoff (5 Min) - (flat to 86°F) 50,400 lb Maximum continuous (flat to 85°F) 46,300 lb

Maximum permissible engine rotor operating speeds

 N_1 (Low compressor) 4,068 rpm (118.5%) N_2 (High compressor) 10,761 rpm (109.5%)

Maximum permissible engine temperature

Turbine exhaust gas temperature

at turbine outlet

Takeoff (5 min) 945°C Maximum continuous 910°C Maximum acceleration (2 min) 960°C

Starting:

Up to 40 sec. 1,652°F (900°C) Above 40 sec. 1,382°F (750°C) Page 13 of 54 A35EU

182.5 KCAS

IV. Type A300, Model B2K-3	C (Transport Category Airplane)					
	Oil Maximum permissib	ole outlet temperature	22000	(1.6000)		
	Continuous operation	. 1	320°F	(160°C)		
	Transient operation limi	ted	24700	(1759C)		
	to 15 min.		34 / F	(175°C)		
APU Limits.	Power rating					
	Maximum at sea level		142 hp			
	Maximum rotor speeds					
	Low pressure speed (N ₁)	30,910	rpm (110%)		
	High pressure speed (N			rpm (110%)		
	Maximum Exhaust gas t		1,085°I			
Airspeed Limits (IAS).	V _{MO} (Maximum	Operating)				
<u> </u>	up to 25,400 f		360 K.			
	M _{MO} (Maximum	Operating				
				0.86 M		
	V _A (Maneuvering)					
	See DGAC Approved Airplane Flight Manual					
	v_{FE}	Slat Positions	Flat Po	sitions		
	Takeoff	16	0	250 K.		
	Takeoff	16	8	215 K.		
	Approach	16	15	205 K.		
	Landing	25	25	180 K.		
	Enroute	20	0	210 K.		
				(M=0.47)		
	V _{LO} (Landing Ge	ar)				
	Extension			270 K.		
	Retraction			240 K.		
	V _{I.E.} (Landing Gear Extended)			270 K.		
	LL	,		(M=0.59)		
	V _{MC} (Minimum 0	Control Speed with the	Critical			
	Engine Inop	perative)		110 777 4 6	105 WC 15	
	In flight - V	In flight - V _{MCA} Takeoff and Landing - V _{MCG}		110 KIAS 106 KIAS	105 KCAS 101.5 KCAS	
	Takeon and	Landing - V MCG		100 KIA3	101.J KCAS	

V (Tires Limitation)

IV. Type A300, Model B2K-3C (Transport Category Airplane) (cont'd)

C.G. Range.

(Landing Gear Extended)

		FORWARI)	A	AFT
Gross Weig	Gross Weight		Takeoff	Enroute &	Takeoff
		Landing		Landing	
142,900 kg	315,040 lb	18% MAC			
to	To	(Sta.1162.82)	All	All	All
125,500 kg	277,042 lb		weights	weights	weights
125,000 kg	277,042 lb	Linear varia-	18% MAC	35% MAC	33% MAC
to	To	tion between	(Sta.	(Sta.	(Sta.
120,500 kg	265,657 lb	18% MAC and	1162.82)	1202.13)	1201.92)
		15% MAC			
Below	Below	15% MAC			
120,500 kg	265,657 lb	(Sta.1155.07)			

Landing gear retraction moment is 68,686 in lb., gear retraction moves c.g. forward.

|--|

<u>kg</u>	<u>1b</u>
142,900	315,040
142,000	313,056
130,500	286,601
120,500	256,657
142,000	313,056
	142,900 142,000 130,500 120,500

Minimum Crew.

For all Flights: Pilot, Copilot and Flight Engineer

Maximum Passengers.

345 - Based on compliance with FAR 25 emergency exit requirements. Emergency evacuation demonstration of 25.803(c) has been performed

with 330 passengers. See DGAC approved interior arrangement drawing for maximum

passenger capacity approved for each airplane as delivered.

Maximum Baggage.

Forward freight compartment with containers:

12 x 2,830 lb.

Middle freight compartment with containers:

8 x 2,830 lb.

Aft freight compartment:

Maximum loading: 5,512 lb.

Fuel Capacity.

Fuel Tank Capacity (lb.)

	Usable Fue		
Location			Arm
			(inches)
	Preselector	Tank high Level	
	Setting cut-off	Sensor cut-off	
	(lb)	(US gal)	
Outboard 1	7,716	1,219	1327.04
Outboard 2	7,716	1,219	1327.04
Inboard 1	29,762	4,593	1156.88
Inboard 2	29,762	4,593	1156.88
Total	74,956	11,624	

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IV. Type A300, Model B2K-3C (Transport Category Airplane) (cont'd)

Fuel Management. Fuel must be loaded symmetrically in outboard tanks first; fuel must be used from

inboard tanks first. Maximum allowable wing fuel asymmetry is 8,820 lb.

Oil Capacity. Engine oil capacity 24.4 lb/engine usable (at 8.1 lb/gal.) with engine moment arm

1011.10 in.

Maximum Operating Altitude. 40,000 ft.

Equipment. The basic required equipment as prescribed in the applicable Federal Aviation

Regulations must be installed. Airbus equipment list document AI/V 760/76 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In addition the following is

required.

DGAC-approved Airplane Flight Manual.

Other Information. See "Data Pertinent to All A300 Models (except the A300B4-600, A300B4-600R and

A300F4-600R series)"

V. Type A300, Model B4-103 (Transport Category Airplane), approved October 4, 1979.

Engines. 2 - General Electric Turbofan, Model CF-6-50C2 (See Note 8). (Data Sheet FAA No.

FAA E 23 EA3 Part B)

APU. Airesearch TS CP 700-5 (TSO C77 SC 6203)

<u>Fuel.</u> (a) The following fuels are eligible for engines and APU:

MIL-T-5624 H Grades JP-4 or JP-5

AST-MD-1655-65T Grades Jet A, A1 (JP-1) and Jet B AST-ES-2-74 Grades Jet A, A1 and Jet B

French specifications are:

Air 3404 Air 3407 Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in apporved fuels for engine and APU:
 - (1) Phillips PFA-55MB or anti-icing additive to specifications MIL-I-27686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.
- (a) The following oils are eligible for the CF6-50 engine: Synthetic type conforming to GE specification D 50 T F1, Classes A or B.
- (b) The following oil is eligible for the APU:See Maintenance Manual TSCP 700 Chap. 49.20.00 Table 303.

V. Type A300, Model B4-103 (Transport Category Airplane) (cont'd).

Engine Limits.	Static thrust, sea level

Takeoff (5 Min) - (flat to 86°F) 51,800 lb Maximum Continuous - (flat to 86°F) 46,300 lb

Maximum permissible engine rotor operating speeds

 $\begin{array}{cc} {\rm N}_1 \ ({\rm Low \ Compressor}) & 4,068 \ {\rm rpm} \ (118.5\%) \\ {\rm N}_2 \ ({\rm High \ Compressor}) & 10,761 \ {\rm rpm} \ (109.5\%) \end{array}$

Maximum permissible engine temperature

Turbine exhaust gas temperature

at turbine outlet

Takeoff (5 min)945°CMaximum Continuous910°CMaximum acceleration (2 min)960°C

Starting:

Up to 40 Sec. 1,652°F (900°C) Above 40 Sec. 1,382°F (750°C)

Oil Maximum permissible outlet temperature

Continuous operation 320°F (160°C) Transient operation limited to 15 min. 347°F (175°C)

APU Limits. Power rating

Maximum at sea level 142 hp.

Maximum rotor speeds

Airspeed Limits (IAS).

	Basic Model	Variants 02, 03, 14
Max. Takeoff Weight	150,000 kg	157,500 kg
V _{MO} (Maximum Operating)	360 K	345 K
Up to	25,400 ft	25,000 ft
M _{MO} (Maximum Operating)	0.86	0.86/0.82 (See Note 4) 25,000 ft
At and over	25,400 ft	

V_A (Maneuvering)

See DGAC Approved Airplane Flight Manual

V_{FE}	Slat P	ositions	Flat Positions
Takeoff	16	0	250 K.
Takeoff & Approach	16	8	215 K.
Takeoff, approach, land.	16	15	205 K.
Landing	25	25	180 K.
Enroute	16	0	210 K.
			(M=0.47)
V _{I,O} (Landing Gear)			
Extension			270 K.
Retraction			240 K.

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V. Type A300, Model B4-103 (Transport Category Airplane) (cont'd)

Airspeed Limits (cont'd)

V_{LE} (Landing Gear Extended) 270 K.

(M=0.59)

 $V_{\mbox{MC}}$ (Minimum Control Speed with the Critical

Engine Inoperative)

 $\begin{array}{ll} \text{In flight - V}_{MCA} & \text{112 KIAS} & \text{107.5 KCAS} \\ \text{Takeoff and Landing - V}_{MCG} & \text{107 KIAS} & \text{102.5 KCAS} \end{array}$

Tires Speed Limit (Ground speed limit): 195.5 KCAS

(225 mph)

C.G. Range. (Landing Gear Extended)

		FORWAR	FORWARD		AFT
Gross Weight		Enroute &	Takeoff	Enroute &	Takeoff
		Landing		Landing	
Max Taxi	Max Taxi	18% MAC			
to	to	(Sta.1162.82)	All	All	All
128,000 kg	282,187 lb		weights	weights	weights
128,000 kg	282,187 lb	Linear varia-	18% MAC	35% MAC	33% MAC
to	to	tion between	(Sta.	(Sta.	(Sta.
122,000 kg	268,960 lb	18% MAC and	1162.82)	1202.13)	1201.83)
		15% MAC			
Below	Below	15% MAC			
122,000 kg	268,960 lb	(Sta.1155.07)			

Landing gear retraction moment is 74,772 in lb., gear retraction moves c.g. forward.

Maximum Weights.

	Basic M	odel	Variant ()2 with	Variant 0	3 with	Variant 1	4 with
			mod 165	2	Mods 165	52 & 2032	mod 619	3
	kg	lb	kg	lb	kg	lb	kg	lb
Taxi Weight	150,900	332,672	158,400	349,206	158,400	349,206	158,400	349,206
Takeoff Weight	150,000	330,687	157,500	347,222	157,500	347,222	157,500	347,222
Landing Weight	133,000	293,210	133,000	293,210	134,000	295,410	134,000	295,410
Zero Fuel Weight	122,000	268,960	122,000	268,960	124,000	273,370	126,000	277,780
Gear Jacking Weight	150,000	330.687	157.500	347,222	157,500	347,222	157.500	347,222

<u>Minimum Crew.</u> For all Flights: Pilot, Copilot and Flight Engineer.

<u>Maximum Passengers.</u> 345 - Based on compliance with FAR 25 emergency exit requirements.

Emergency evacuation demonstration of 25.803(c) has been performed

with 330 passengers. See DGAC approved interior arrangement drawing for maximum

passenger capacity approved for each airplane as delivered.

Maximum Baggage. Forward freight compartment: Max admissible load 36,600 lb.

- With containers: 12 x 2830 lb. or

6 x 5660 lb. when Mod. 1844 is incorporated

- A maximum container weight of 3500 lb each side or 7000 lb both sides is permitted at station 22, 23 and 24 when Mod. 2317 is incorporated.

- With pallets: 4 x 8,300 lb.

A maximum pallet weight of 10,200 lb is permitted at station 22 when

Mod. 2,488 is incorporated,

OR

6 x 5,660 lb. when Mod. 1844 and 4171 are incorporated.

V. Type A300, Model B4-103 (Transport Category Airplane) (cont'd).

Maximum Baggage (cont'd)

A maximum pallet weight 7,000 lb is permitted at stations 22, 23, 24 when Mods. 1844, 2317 and 4171 are incorporated.

- Split engine transport:

- When Mod. 2001 is incorporated

- Maximum weight of each pallet must not exceed 8200 lb.

- Pallets, engine stands and pallet net must be in accordance with specification AI/TI-431/77

Middle freight compartment: Max admissible load 23,980 lb.

- With containers: 8 x 2,830 lb or

4 x 5,660 lb. when Mod. 1844 is incorporated

- With pallets: 2 x 5,660 lb.

2 x 7,000 lb. when Mods 1844, 2317 and 4171 are incorporated.

A maximum of 3,500 lb. each side or 7,000 lb. both sides is permitted at station 41 when Mod. 0470 is incorporated and at station 42 when Mod. 2317 is incorporated.

Aft freight compartment: Maximum loading 5,512 lb.

Fuel Capacity.

Usable fuel tank capacity (lb) - Density 6,526 lb./US gal.

	Without I	Mod 1664	With Mo	d 1664
Location Arm (in.)	Preselector cutoff (lb)	Tank high level sensor cutoff lb/U.S. gal	Preselector cutoff (lb)	Tank high level sensor cutoff lb/U.S. gal
Outboard 1 1327.04	7,716	7,942 1,217	7,710	7,994 1,225
Outboard 2 1327.04	7,716	7,942 1,217	7,710	7,994 1,225
Inboard 1 1156.88	29,762	29,791 4,565	29,760	30,281 4,640
Inboard 2 1156.88	29,762	29,791 4,565	29,760	30,281 4,640
Central 1106.10	24,251	24,701 3,785	29,760	30,346 4,650
Total	99,207	100,167 15,349	104,700	106,896 16,380

Fuel Management.

Fuel must be loaded symmetrically in outboard tanks first; fuel must be used from inboard tanks first. Maximum allowable wing fuel asymmetry is $8,820\ lb$.

Oil Capacity.

Engine oil capacity 24.4 lb/engine usable (at 8.1 lb/gal.) with engine moment arm 1011.10 in.

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Maximum Operating Altitude.

40,000 ft.

Equipment.

The basic required equipment as prescribed in the applicable Federal Aviation Regulations must be installed. Airbus equipment list document AI/V 549/79 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In addition the following is required:

Other Information.

See "Data Pertinent to All A300 Models (except the A300B4-600,

A300B4-600R and A300F4-600R Series)"

DGAC-Approved Airplane Flight Manual.

VI. Type A300 Model B2-203 (Transport Category Airplane) approved October 1, 1980.

Engines.

2 - General Electric Turbofan, Model CF6-50C2 (See Note 8). Data Sheet FAA: No. E 23 EA3 - Part B.

APU.

Airesearch TS CP 700-5 (TSO C77 SC 6203)

Fuel.

(a) The following fuels are eligible for engines and APU:

MIL-T-5624H Grades JP-4 or JP-5

AST-MD-1665-65T Grades Jet A, A1 (JP-1) and Jet B AST-ES-2-74 Grades Jet A, A1 and Jet B

French specifications are:

Air 3404 Air 3407 Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engines and APU:
 - (1) Philips PFA-55MB or anti-icing additive to specifications MIL-I-27686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.

Oil.

(a) The following oils are eligible for the CF6-50 engine:

Synthetic type conforming to GE specifications D 50 T F1,

Classes A or B. (GE Service Bulletin No. 79-1 lists approved brand oils.)

(b) The following oil is eligible for the APU:

See Maintenance Manual TS CP 700, Chap. 49.20.00 Table 303.

VI. Type A300 Model B2-203	(Transport Category Airplane) (cont'd)	
Engine Limits.	Static thrust, sea level	
	Takeoff (5 min) - (flat to 86°F)	51,800 lb
	Maximum Continuous (flat to 85°F)	46,300 lb
	Maximum permissible engine rotor	operating speeds
	N1 (Low compressor)	4068 rpm (118.5%)
	N2 (High compressor)	10,761 rpm (109.5%)
	Maximum permissible engine tempe	erature
	Turbine exhaust gas temperature at	turbine outlet
	Takeoff (5 min)	945°C
	Maximum Continuous	910℃
	Maximum acceleration (2 min)	960°C
	Starting:	
	Up to 40 Sec.	1652°F (900°C)
	Above 40 Sec.	1382°F (750°C)
	Oil Maximum permissible outlet ten	-
	Continuous operation	320°F (160°C)
	Transient operation limited to 15 mi	n. 347° (175°C)
APU Limits.	Power rating	
	Maximum at sea level	142 hp.
	Maximum rotor speeds	
	Low pressure speed (N ₁)	30,910 rpm (110%)
	High pressure speed (N ₂)	38,845 rpm (110%)
	Maximum exhaust gas temperature	1,085°F (585°C)
	V _A (Maneuvering) See DGAC Approved Airplane	Flight Manual
		2 256.00 2.200.000
Airspeed Limits (IAS).	V _{MO} (Maximum Operating)	245 17
	up to 28,400 ft	345 K.
	M _{MO} (Maximum Operating)	0.06
	at and over 28,000 ft	0.86
	V _A (Maneuvering) See DGAC Approved Airplane	Flight Manual
	115	ositions Flat Positions
	Takeoff 16	
	Takeoff 16	
	Approach 16 Landing 25	15 205 K. 25 180 K.
	Enroute 16	0 210 K.
	Emoute	(M=0.47)
	V _{LO} (Landing Gear)	(IVI=0.47)
	Extension	270 K.
	Retraction	240 K.
	V _{I.E.} (Landing Gear Extended)	270 K.
	LE (Panding Ocal Extended)	(M=0.59)
	V _{MC} (Minimum Control Speed wi	th the Critical Engine Inonerative)
	In flight - V _{MCA}	112 KIAS 105 KCAS
	Takeoff and Landing-V _{MCA}	
	Tuncon and Building V MC	U 107.111.15 102.15 1101.15

V (Tires Limitation

195.5 KCAS

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C.G. Range.

(Landing Gear Extended)

		FORWAR	D		AFT
Gross Weight		Enroute &	Takeoff	Enroute &	Takeoff
		Landing		Landing	
142,900 kg	315,040 lb	18% MAC			
to	to	(Sta.1162.82)	All	All	All
125,500 kg	277,042 lb		weights	weights	weights
125,500 kg	277,042 lb	Linear varia-	18% MAC	35% MAC	33% MAC
to	to	tion between	(Sta.	(Sta.	(Sta.
120,500 kg	265,657 lb	18% MAC and	1162.82)	1202.13)	1201.92)
		15% MAC			
Below	Below	15% MAC			
120,500 kg	265,657 lb	(Sta.1155.07)			

Landing gear retraction moment is 68,686 in lb., gear retraction moves c.g. forward.

Maximum Weights	Maximum	Wei	ghts.
-----------------	---------	-----	-------

<u>kg</u>	<u>lb</u>
142,900	315,040
142,000	313,056
130,000	286,601
120,500	265,657
142,000	313,056
	142,900 142,000 130,000 120,500

Minimum Crew.

For all Flight: Pilot, Copilot and Flight Engineer

Maximum Passengers.

345 - Based on compliance with FAR 25 emergency exit requirements. Emergency evacuation demonstration of 25.803(c) has been performed with 330 passengers. See DGAC approved interior arrangement drawing for maximum

with 350 passengers. See DGAC approved interior arrangement drawing for maximum

passenger capacity approved for each airplane as delivered.

Maximum Baggage.

Forward freight compartment with containers:

12 x 2,830 lb.

Middle freight compartment with containers:

8 x 2,830 lb.

Aft freight compartment:

Maximum loading: 5,512 lb.

Fuel Capacity.

Fuel Tank Capacity (lb.)

	Usable Fue		
Location			Arm
			(inches)
	Preselector	Tank high Level	
	Setting cut-off	Sensor cut-off	
	(lb)	(US gal)	
Outboard 1	7,716	1,219	1327.04
Outboard 2	7,716	1,219	1327.04
Inboard 1	29,762	4,593	1156.88
Inboard 2	29,762	4,593	1156.88
Total	74,956	11,624	

Fuel Management.

Fuel must be loaded symmetrically in outboard tanks first; fuel must be used from inboard tanks first.

Maximum allowable wing fuel asymmetry is 8,820 lb.

Oil Capacity. Engine oil capacity 24.4 lb/engine usable (at 8.1 lb/gal.) with engine moment arm

1011.10 in.

Maximum Operating Altitude. 40,000 ft.

Equipment. The basic required equipment as prescribed in the applicable Federal Aviation

Regulations must be installed. Airbus equipment list document AI/V 947/80 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In addition the following is

required.

DGAC-approved Airplane Flight Manual plus Document AI/V-F 902/79,

Instrument Markings and Placards.

Other Information. See "Data Pertinent to All A300 Models (except the A300B4-600,

A300B4-600R and A300F4-600R Series)"

VII. Type A300, Model B4-203 (Transport Category Airplane) approved October 2, 1981.

Engines. 2 - General Electric Turbofan, Model CF6-50C2 (See Note 8).

(Data Sheet FAA No. E23EA3 - Part B)

APU. Airesearch TS CP 700-5 (TSO C77 SC 6203)

<u>Fuel.</u> (a) The following fuels are eligible for engines and APU:

MIL-T-5624H Grades JP-4 or JP-5

AST-MD-1655-65T Grades Jet A, A1 (JP-1) and Jet B AST-ES-2-74 Grades Jet A, A1 and Jet B

French specifications are:

Air 3404 Air 3407 Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engines and APU:
 - (1) Philips PFA-55MB or anti-icing additive to specifications MIL-I-27686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.
- (a) The following oils are eligible for the CF6-50 engine:

Synthetic type conforming to GE specifications D 50 T F1,

Classes A or B. (GE Service Bulletin No. 79-1 lists approved brand oils.)

(b) The following oil is eligible for the APU: See Maintenance Manual TS CP 700, Chap. 49.20.00 Table 303.

Oil.

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> 112 KIAS 107 5 KCAS 107 KIAS 102.5 KCAS 195.5 KCAS

VII. Type A300, Model B4-203 (Tra	ansport Category Airplane) (cont'd)			
Engine Limits.	Static thrust, sea level Takeoff (5 min) - (flat to 86°F) Maximum Continuous (flat to 85°F)		51,800 lb 46,300 lb	
	Maximum permissible engine rotor N1 (Low compressor) N2 (High compressor)	operating spo	4068 rp	m (118.5%) om (109.5%)
	Maximum permissible engine temper Turbine exhaust gas temperature at Takeoff (5 min) Maximum Continuous Maximum acceleration (2 min) Starting: Up to 40 Sec. Above 40 Sec.			900°C)
	Oil Maximum permissible outlet ter Continuous operation Transient operation limited to 15 mi			160°C) 175°C)
APU Limits.	Power rating Maximum at sea level		142 hp.	
	Maximum rotor speeds Low pressure speed (N_1) High pressure speed (N_2) Maximum exhaust gas temperature		pm (110%) pm (110%) (585°C)
Airspeed Limits (IAS).	V _{MO} (Maximum Operating) up to 25,000 ft	345 K.		
	M _{MO} (Maximum Operating) at and over 25,400 ft		0.86/0.82 (See Note	
	V _A (Maneuvering) See DGAC Approved Airplane	Flight Man	ual	
	Takeoff 16 Takeoff 16 Approach 16 Landing 25 Enroute 16		Flat Posit 0 8 15 25 0	tions 250 K. 215 K. 205 K. 180 K. 210 K. (M=0.47)
	V _{LO} (Landing Gear) Extension Retraction			270 K. 240 K.
	V_{LE} (Landing Gear Extended) V_{MC} (Minimum Control Speed wi Engine Inoperative) In flight - V_{MCA}			270 K. (M=0.59) S 107 5 KCA
	Takeoff and Landing-V _{MC} V (Tires Limitation)	G	107 KIAS	S 102.5 KCA 195.5 KCAS

VII. Type A300, Model B4-203 (Transport Category Airplane) (cont'd)

C.G. Range. (Landing Gear Extended)

		FORWAR	D	AFT	
Gross Wei	Gross Weight		Takeoff	Enroute &	Takeoff
		Landing		Landing	
Max Taxi	Max Taxi	18% MAC			
to	to	(Sta.1162.82)	All	All	All
130,000 kg	286,600 lb		weights	weights	weights
130,000 kg	286,642 lb	Linear varia-	18% MAC	35% MAC	33% MAC
to	to	tion between	(Sta.	(Sta.	(Sta.
124,000 kg	273,370 lb	18% MAC and	1162.82)	1202.13)	1201.83)
		15% MAC			
Below	Below	15% MAC			
124,000 kg	273,370 lb	(Sta.1155.07)			

Landing gear retraction moment is 74,772 in lb., gear retraction moves c.g. forward.

Maximum Weights.

	Basic	c Model		nt 07 with od 3195
	kg	lb	kg	lb
Taxi Weight	165,900	365,740	165,900	365,740
Takeoff Weight	165,000	363,760	165,000	363,760
Landing Weight	134,000	295,410	136,000(1)	299,820(1)
			134,000(2)	295,410(2)
Zero Fuel Weight	124,000	273,370	124,000	273,370
Gear Jacking Weight	165,000	363,750	165,000	363,750

- (1) 136,000 kg slats 16°/flaps 15°
- (2) 134,000 kg slats 25°/flaps 25°

Minimum Crew.

For all Flights: Pilot, Copilot and Flight Engineer

Maximum Passengers.

345 - Based on compliance with FAR 25 emergency exit requirements. Emergency evacuation demonstration of 25.803(c) has been performed with 330 passengers. See DGAC approved interior arrangement drawing for maximum passenger capacity approved for each airplane as delivered.

Maximum Baggage.

Forward freight compartment: Max admissible load 36,600 lb.

- With containers: 12 x 2,030 lb. or

6 x 5,660 lb. when Mod. 1844 is incorporated

- A maximum container weight of 3,500 lb each side

7,000 lb both sides is permitted at station 22, 23 and 24 when Mod. 2317 is incorporated.

- With pallets: 4 x 8,300 lb.

A maximum pallet weight of 10,200 lb is permitted at station 22 when Mod. 2488 is incorporated,

OR

6 x 5,660 lb. when Mods. 1844 and 4171 are incorporated.

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VII. Type A300, Model B4-203 (Transport Category Airplane) (cont'd)

Maximum Baggage (cont'd)

A maximum pallet weight 7,000 lb is permitted at stations 22, 23, 24 when Mods. 1844, 2317 and 4171 are incorporated.

- Split engine transport
- When Mod. 2001 is incorporated
- Maximum weight of each pallet must not exceed 8,200 lb.
- Pallets, engine stands and pallet net must be in accordance with specification $\mbox{AI/TI-}431/77$

Middle freight compartment: Max admissible load 23,980 lb.

- With containers 8 x 2,830 lb or
 - 4 x 5,660 lb. when Mod. 1844 is incorporated
- With pallets: 2 x 5,660 lb.

2 x 7,000 lb. when Mods 1844, 2317 and 4171 are incorporated.

A maximum of 3,500 lb. each side or 7000 lb. both sides is permitted at station 41 when Mod. 0470 is incorporated and at station 42 when mod. 2317 is incorporated.

Aft freight compartment: Maximum loading 5512 lb.

Fuel Capacity.

Usable fuel tank capacity (lb) - Density 6.6 lb./US gal.

	Without N	Iod 1664	With Mo	d 1664
Location	Preselector	Tank high level	Preselector	Tank high level
Arm (in.)	cutoff	sensor cutoff	cutoff	sensor cutoff
	(lb)	lb/U.S. gal	(lb)	lb/U.S. gal
Outboard 1	7,716	7,942	7,710	7,994
1327.04	,	1,217	,	1,225
Outboard 2	7,716	7,942	7,710	7,994
1327.04	7,710	1,217	7,710	1,225
Inboard 1	29,762	29,791	29,760	30,281
1156.88	29,702	4,565	29,700	4,640
Inboard 2	29,762	29,791	29,760	30,281
1156.88		4,565		4,640
Central	24,251	24,701	29,760	30,346
1106.10	21,231	3,785	29,700	4,650
Total	99,207	100,167	104,700	106,896
		15,349		16,380

Fuel Management.

Fuel must be loaded symmetrically in outboard tanks first; fuel must be used from inboard tanks first. Maximum allowable wing fuel asymmetry is 8,820 lb.

VII. Type A300, Model B4-203 (Transport Category Airplane) (cont'd)

Oil Capacity. Engine oil capacity 24.4 lb/engine usable (at 8.1 lb/gal.) with engine

moment arm 1011.10 in.

40,000 ft. Maximum Operating Altitude.

The basic required equipment as prescribed in the applicable Federal Aviation Equipment.

Regulations must be installed. Airbus equipment list document AI/V-C 379/81 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In addition the following

is required:

DGAC-Approved Airplane Flight Manual, plus for Model B4-203, document

AI/V-F 902/79.

See "Data Pertinent to All A300 Models (except the A300B4-600, A300B4-600R and Other Information.

A300F4-600R Series)"

DATA PERTINENT TO ALL A300 MODELS

(EXCEPT THE A300B4-600, A300B4-600R and A300F4-600R SERIES)

Station 0 (251.26 inches forward of fuselage nose) Datum.

MAC. 260.15 inches (Leading edge of MAC: Sta. 1116)

Clinometer on the cabin rails. Leveling Means.

Control Surface Movements. To insure operation of the airplane, the movement of the various

> control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplane must therefore be rigged in accordance with the following DGAC-approved information and data:

Control surface movement inspection -

Airbus Reports A300B 8.27.010

011

012

013

014

015

Rigging procedure -

10.063 Airbus Reports A 007

10.094 10.095

10.100

10.102

10.103

10.105

10.114 (for type B2-1A & B2-1C)

10.123 (for type B4-2C, B2K-3C.

B2-203, B4-103, & B4-203)

Serial Numbers Eligible. A French "Certificate de Navigabilite pour Exportation" endorsed as

noted under "Import Requirements" must be submitted for each

individual aircraft for which application for U.S. certification is made.

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Import Requirements.

An FAA Standard Airworthiness Certificate may be issued on the basis of a French "Certificate de Navigabilite pour Exportation" signed by a representative of the Direction Generale de 'Aviation Civile (D.G.A.C.) of France, containing the following statement: "The airplane covered by this certificate has been examined, tested and found to conform to the type design approved under Type Certificate No. A35EU and to be in condition for safe operation".

Certification Basis.

FAR 21.29 (a)(1), based upon France/German requirements of FAR Part 25 effective February 1, 1965, including Amendments 25-1 through 25-20, plus Amendment 25-23 for Paragraphs 25.145, 25.1305, 25.1321, 23.1331, 25.1333, Amendment 25-24 for Paragraph 25.1303; Amendment 25-23 for Paragraphs 25.785 through 25.791, 25.809 through 25.812, 25.853 through 25.857, and 25.1557; Conditions Techniques Complementares as listed in DGAC documents 4080 DTA/M dated August 8, 1970, 3904 DTA/M dated July 20, 1972, and 2060 DTA/M dated March 30, 1973; Corresponding FAA certification requirements are FAR Part 25 as detailed above plus Special Conditions No. 25-52-EU-16, plus FAA Part 36 including appropriate amendments (See NOTE 8). SFAR-27 through 27-3 (see NOTE 9). Compliance has been shown with the following optional requirements:

Ditching 25.801 Ice Protection 25.1419

Date of Application: February 4, 1970 Type Certificate No. A35EU, issued May 30, 1974.

Service Information.

All Airbus Service Bulletins will be DGAC approved and will carry a statement to that effect. This statement may be interpreted as "FAA Approved." All Service Bulletins that are subject to a Consigne de Navigabilite of the DGAC will carry a statement to that effect.

The Structural Repair Manual (A SRM E00A) and its revisions are DGAC approved and carry a statement of DGAC approval. That statement is to be interpreted as constituting FAA approval.

Other available service documents for the Airbus include:

- (1) Illustrated Parts Catalog
- (2) Wiring Diagram Manual
- (3) Maintenance Manual

NOTES (A300)

NOTE 1. Weight and Balance

- (a) Current weight and balance report including list of equipment, entitled "Aircraft Inspection Report," included in certificated empty weight, and loading instructions, must be in each aircraft at the time of original certification and at all times thereafter except in the case of operators having an approved weight control system. Airbus Report, "Weight and Balance Manual," contains loading information for each airplane and interior arrangement configuration as delivered. This report contains, or refers to, information relative to location of all passengers and crew member seats, location and capacity of all cargo and baggage compartments, buffets, storage spaces and coat rooms, location and capacity of lounges, lavatories, and the required placards in the passenger compartment.
- (b) The airplane must be loaded so that the C.G. is within specified limits t all times, considering fuel loading and usage, gear retraction and movement of crew and passengers from their assigned positions.
- (c) The weights of system fuel and oil, as defined below and hydraulic fluid, all of which must be included in the airplane empty weight, are listed for each airplane in the Weight and Balance Manual specified in paragraph (a) above.

- (d) System fuel is the weight of all fuel required to fill all lines and tanks up to the zero-fuel point on the fuel gauges in the most critical flight attitude, including the unusable tank fuel as defined by FAR Part 26.959. (The usable fuel in the crossfeed manifold lines, manifolds and engine, that is not part of the system fuel, must be included in the total usable fuel to obtain correct weight and C.G. for takeoff).
- (e) The unusable fuel is that amount of fuel in the tanks which is unavailable to the engines under critical flight conditions as defined in FAA Part 25.959. This "unusable" fuel is included in System Fuel as indicated in 1(d) above and need not be accounted for separately.
- (f) System oil is the weight of oil remaining in the engine, constant speed drive, lines and tanks after subtracting the oil in the tanks which is above the standpipe (zero gauge) levels. The engine oil capacities shown elsewhere in this data sheet includes only the usable oil for which the tanks must be placarded.

NOTE 2. Placards - Model A300B2-1A, B2-1C, B4-2C, B2K-3C:

All placards listed in the DGAC-approved Airplane Flight Manual must be installed in the appropriate locations.

Model A300B4-103, B2-203, B4-203;

Instrument markings and placards must be in accordance with Document AI/V-F 902/79.

NOTE 3. <u>Life Limitations</u>

Service Life Limits are provided in the DGAC approved Chapter 05-11-00 of the A300 Aircraft Maintenance Manual.

NOTE 4.

For models B4-2C and B4-103 aircraft incorporating modification no. 1652 and for model B4-203 aircraft, the MMO warning selector of modification no. 1688 allows an MMO switching. MMO is 0.86 M for takeoff weights up to 153,000 kg (337,302 lb) and 0.82 M for takeoff weight greater than 153,000 kg (337,302 lb) provided the airplane is operated in accordance with the corresponding DGAC approved Airplane Flight Manual page 2.03.00 page 1.

NOTE 5. Cabin Equipment

Seats, galleys and other cabin equipment aft of fuselage station 28.768m (94.38 ft) must be designed for upward load factor not less than 3.0 g.

NOTE 6. Cat III Maintenance Requirements

Autoland Maintenance tasks and associated intervals are listed in Airbus document AI/V-C 387/79 dated March 27, 1979 Revision 1 dated April 20, 1979, and Revision 2, dated October 19, 1984.

NOTE 7. Alternate Engine Installations

A - Alternate Engine Models eligible

2 General Electric Model CF6-50C1

or

2 General Electric Model CF6-50C

B - Engine Model Intermix

1 General Electric CF6-50C2 and 1 General Electric CF6-50C1

1 General Electric CF6-50C2 and 1 General Electric CF6-50C

The above engine configurations are permitted when installation is in accordance with Airbus Service Bulletin No. A300-71-011 and the engines are operated in accordance with Supplement No. 4 to the DGAC-approved AFM.

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NOTE 8. The following FAR 36 Noise Certification by Model reflects required as well as Airbuss voluntary updated compliance to later

FAR-36 amendments.

Model B2-1A	Amendment	36-1
B2-1C		36-12
B4-2C		36-3
B2K-3C		36-3
B2-203		36-12
B4-103		36-12
B4-203		36-12

NOTE 9. Model A300 series airplanes comply with SFAR 27 through 27-3 when Airbus's Modifications

No. 1024, 1318 and 1351 are installed.

<u>NOTE 10.</u> The following models may be converted in accordance with Airbus Service Bulletin No.

A300-00-001:

Model A300 B2K-3C to Model A300 B2-203 Model A300 B4-2C to Model A300 B4-103 Model A300 B4-2C to Model A300 B4-203 Model A300 B4-103 to Model A300 B4-203

VIII. A300-B4-600 Series (A300B4-601 approved March 28, 1988; A300B4-603 and A300B4-620 approved September 19, 1988) Transport Aircraft

Engines.

2 - General Electric CF6-80C2A1 (A300B4-601) or 2 General Electric

CF6-80C2A3 (A300B4-603) (FAA Data Sheet E13NE).

2 Pratt and Whitney JT9D-7R4H1 (A300B4-620) (FAA Data Sheet E3NE)

Airesearch GTCP 331-250 (Specification 31-2891)

(a) The following fuels are eligible for engines and APU:

MIL-T-5624H Grades JP-4 or JP-5

AST-MD-1655-65T Grades Jet A1 (JP-1) and Jet B AST-ES-2-74 Grades Jet A, A1 and Jet B

French specifications are:

Air 3404 Air 3407 Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engines and APU:
 - Philips PFA-55MB or anti-icing additive to specifications MIL-I-278686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).

APU.

Fuel.

VIII. A300-B4-600 Series (A300B4-601, A300B4-603 and A300B4-620 (cont'd)

(3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.

Oil.

(a) The following oils are eligible for the engines:

Synthetic type conforming to GE specifications D50TF1, Classes A or B. (GE Service Bulletin No. 79-1 lists approved brand oils.)

Synthetic type conforming to PW specification 521C (PW Service Bulletin No. 238 lists approved brand oils).

(b) The following oil is eligible for the APU: See Maintenance Manual AIRESEARCH GTCP 331-250, Chapter 49.21.00 Table 2.

Engine Limits.

	PRATT AND	PRATT AND		GENERAL ELECTRIC		
	WHTINEY		CF6-80C2A1	CF6-80C2A3		
	JT9D-7R4H1					
Static Thrust, Sea Level						
Takeoff (5 min-up to 87 F)	56,000 lb		57,860 lb	58,950 lb		
Max. Cont. (up to 87 F)	50,000 lb		53,390 lb	58,780 lb		
Max. Permissible Engine						
Rotor Operating Speeds						
N1 (Low compressor)	3,810 rpm		3,854 rpm	3,854 rpm		
	(105.8%)		(117.5%)	(117.5%)		
N2 (High compressor)	8,080 rpm		11,055 rpm	11,055 rpm		
	(103.5%)					
Max. Permissible Engine						
Temperature						
(Turbine exhaust temperature						
at turbine outlet)						
Takeoff (5 min)		680°C	960°C	960°C		
Acceleration (2 min)		680°C	-	-		
Maximum Continuous		635°C	925℃	925℃		
Starting						
up to 40 sec		535°C	870°C	870°C		
above 40 sec		535°C	750°C	750°C		
Oil Max. Permissible						
Outlet Temperature						
Continuous Operation		135℃	160°C	160°C		
Transient operation						
Limited to 15 min.		163°C	175°C	175°C		
Limited to 20 min.						

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VIII. A300-B4-600 Series (A300B4-601, A300B4-603 and A300B4-620 (cont'd)

APU Limits. - Power rating maximum at sea level: 98.5 KW - Maximum operating speed: 43,562 rpm

- Maximum gas temperature at turbine outlet: 585°C

Airspeed Limits (IAS)

	BASIC MODEL
MAXIMUM OPERATING MACH M _{MO}	0.82
MAXIMUM OPERATING SPEED V _{MO} (Kt)	335

 ${
m V_A}$ (Maneuvering speed): refer to DGAC-approved FAA Airplane Flight Manual Chapter 2.03.

v_{FE}

SLATS (°)	FLAPS (°)	VFE (kt)
15	0	250
15	15	215
15	20	205
30	40	175

V_{LE} Landing gear extended 270 Kt or M=0.59

 $V_{MC}^{\rm LL}$ (Minimum control speed with the critical engine inoperative)

	B4-620	B4-601	B4-603
Inflight - VMCA	109 KCAS	115 KCAS	115.5 KCAS
Take off - VMCG	107.5 KCAS	113.5 KCAS	114 KCAS

Tire Speed Limit (Ground speed limit): 195.5 kt (225 mph)

C.G. Range.

For C.G. envelopes, see approved Flight Manual.

Maximum Weights.

	BASIC MODEL	
	kg	lb
Taxi Weight	165,900	365,740
Take-off weight	165,000	363,760
Landing weight	138,000	304,230
Zero fuel weight	130,000	286,600

Minimum Flight Weight. 90,000 kg. (198,410 lb)

Minimum Crew. For all flights: 2 pilots

VIII. A300-B4-600 Series (A300B4-601, A300B4-603 and A300B4-620) (cont'd)

<u>Maximum Passengers.</u> 345. For seating arrangement refer to AIRBUS

specification TL 25/1110/74

Maximum Baggage.Forward compartment - Maximum load:40,800 lbsAft compartment - Maximum load:28,300 lbs

Bulk compartment - Maximum load: 6,110 lbs

Fuel Capacity.

Location	(Usable fuel	(Usable fuel 6.676 lb/gal)	
	(lb)	(US gal)	(inches)
Outboard Tanks	9,260	2,450	1325.99
Inboard Tanks	35,140	9,280	1158.27
Center Tanks	17,600	4,650	1102.68
TOTAL	62,000	16,380	1167.52

Fuel Management. Fuel must be loaded symmetrically in outboard tanks first; fuel must be

used from inboard tank first. Maximum allowable wing fuel asymmetry is 4,410 lb.

Oil Capacity. GE Engine oil capacity 25.02 lb/engine usable (at 8.1 lb/gal) with engine mount arm

965.15 inches.

PW - Engine oil capacity 33.40 lb/engine usable (at 8.1 lb/gal) with engine moment arm

1022.6 inches.

Maximum Operating Altitude. 40,000 ft.

Equipment. The basic required equipment as prescribed in the applicable Federal Aviation

Regulations must be installed in the aircraft. Airbus Equipment List A1/V-C No. 401/84 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In addition, the

following is required:

DGAC-Approved FAA Airplane Flight Manual.

Other Information. See "Data Pertinent to all A300B4-600, A300B4-600 R and A300F4-600R Models".

IX. A300B4-600R Series (A300B4-605R approved March 28, 1988, A300B4-622R approved August 1, 1991) Transport Aircraft.

Engines. 2 General Electric CF6-80C2A5 (A300B4-605R) (FAA Data Sheet E13 NE)

or

2 Pratt & Whitney PW 4158 (A300B4-622R) (FAA Data Sheet E24NE)

APU. Airesearch GTCP 331-250 (Specification 31-2891)

<u>Fuel.</u> (a) The following fuels are eligible for engines and APU:

MIL-T-5624H Grades JP-4 or JP-5

AST-MD-1655-65T Grades Jet A1 (JP-1) and Jet B AST-ES-2-74 Grades Jet A, A1 and Jet B Page 33 of 54 A35EU

IX. A300B4-600R Series (A300B4-605R approved March 28, 1988, A300B4-622R approved August 1, 1991) (cont'd)

Fuel (cont'd)

French specifications are:

Air 3404

Air 3407

Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engines and APU:
 - (1) PHILLIPS PFA-55MB or anti-icing additive to specifications MIL-I-278686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.
- (a) The following oils are eligible for the CF6-80C2A5 and PW 4158 engines respectively:
 - Synthetic type conforming to GE specifications D50TF1, Classes A or B. (GE Service Bulletin No. 79-1 lists approved brand oils.)
 - Synthetic type conforming to PW specification 521C (PW Service Bulletin No. 238 lists approved brand oils).
- (b) The following oil is eligible for the APU: See Maintenance Manual AIRESEARCH GTCP 331-250, Chapter 49.21.00 Table 2.

Oil.

IX. A300B4-600R Series (A300B4-605R approved March 28, 1988, A300B4-622R approved August 1, 1991) (cont'd)

Engine Limits.

Engine Limits.		
	GENERAL ELECTRIC	PRATT & WHITNEY
	CF6-80C2A5	PW 4158
Static Thrust, Sea Level		
Takeoff (5 min-up to 87°F)	60,100 lb.	58,000 lb.
Maximum Continuous (up to 87°F)	56,210 lb.	49,580 lb.
Maximum Permissible Engine Rotor Operating Speeds		
N1 (Low compressor)	3,854 rpm (117.5%)	4,012 rpm (111.4%)
N2 (High compressor)	10,055 rpm (112.5%)	10,450 rpm (105.5%)
Maximum Permissible Engine Temperature	(112.5%)	(103.370)
(Turbine exhaust temperature at turbine outlet)		
Takeoff (5 min)	960°C	650°C
Acceleration (2 min)	-	925°C
Maximum Continuous	925°C	625°C
Starting	07007	50500
° up to 40 sec ° above 40 sec	870°C 750°C	535°C 535°C
Oil Maximum Permissible Outlet Temperature		
Continuous Operation	160°C	163°C
Transient operation	17590	
° Limited to 15 min. ° Limited to 20 min.	175℃	- 177℃

APU Limits.

- Power rating maximum at sea level: 98.5 KW

- Maximum operating speed: 43,562 rpm

- Maximum gas temperature at turbine outlet: 585°C

Airspeed Limits (IAS).

MAXIMUM OPERATING MACH MMO	0.82
MAXIMUM OPERATING SPEED VMO (Kt)	335

 V_{A} (Maneuvering speed): refer to DGAC-approved FAA Airplane Flight Manual Chapter 2.03.

 v_{FE}

SLATS (°)	FLAPS (°)	VFE (kt)
15	0	250
15	15	215
15	20	205
30	40	175

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IX. A300B4-600R Series (A300B4-605R approved March 28, 1988, A300B4-622R approved August 1, 1991) (cont'd)

Airspeed Limits (IAS) (cont'd)

V_{LE} Landing gear extended 270 Kt or M=0.59

V_{MC} (Minimum control speed with the critical engine inoperative)

	A300B4-605R	A300B4-622R
Inflight - VMCA	117 KCAS	111 KCAS
Take off - VMCG	115.5 KCAS	109,5 KCAS

Tire Speed Limit (Ground speed limit): 195.5 KCAS (225 mph)

C.G. Range.

For C.G. envelopes, see approved Flight Manual.

Maximum Weights.

	BASIC	MODEL	VARIANT 01		VARIANT 02		VARIANT 03	
	kg	lb	kg	lb	kg	lb	kg	lb
Taxi Weight	171,400	377,930	172,600	380,520	172,600	380,520	168,700	371,920
Take-off Weight	170,500	375,890	171,700	378,530	171,700	378,530	167,800	369,930
Landing Weight	140,000	308,650	140,000	308,650	138,000	304,235	140,000	308,650
Zero Fuel Weight	130,000	286,600	123,000*	271,170	123,000*	271,170	131,000	288,800

*Linear variation from 130T at MTOW 170.5T to 123T at MTOW 171.7T.

Variant 01: With modification 7047 Variant 02: With modification 7486 Variant 03: With modification 7619

Minimum Flight Weight. 90,000 kg. (198,410 lb)

Minimum Crew. For all flights: 2 pilots

Maximum Passengers. 345. For seating arrangement refer to AIRBUS

specification TL 25/1110/74

Maximum Baggage. Forward compartment - Maximum load: 40,800 lbs

Aft compartment - Maximum load: 28,300 lbs
Bulk compartment - Maximum load: 6,110 lbs

Fuel Capacity.

Location	(Usable fue	Arm	
	(lb)	(US gal)	(inches)
O. 4h 1 T- 1-	0.260	2.450	1225.00
Outboard Tanks	9,260	2,450	1325.99
Inboard Tanks	35,140	9,280	1158.27
Center Tanks	17,600	4,650	1102.68
Trim Tank	6,150	1,625	2182.56
TOTAL	68,150	18,005	1259.46

Fuel Management. Fuel must be loaded symmetrically in outboard tanks first; fuel must be

used from inboard tank first. Maximum allowable wing fuel asymmetry is 4,410 lb.

Oil Capacity. GE CF6-80C2A5 - Engine Oil Capacity 25.02 lb/engine usable (at 8.1 lb/gal) with

engine moment arm 965.15 inches.

PW 4158 - Engine Oil Capacity 28.44 lb/engine usable (at 8.1 lb/gal)

with engine moment arm 1023.80 inches.

Maximum Operating Altitude. 40,000 ft.

Equipment. The basic required equipment as prescribed in the applicable Federal

Aviation Regulations must be installed in the aircraft. Airbus Equipment List A1/EA-A No. 413-288/88 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In

addition, the following is required:

DGAC-Approved FAA Airplane Flight Manual.

Other Information. See "Data Pertinent to all A300B4-600, A300B4-600R and A300F4-600R Models".

X. A300 F4-600R Series (A300F4-605R approved April 27, 1994, A300F4-622R approved July 14, 2000), Transport Aircraft.

Engines. 2 General Electric CF6-80C2A5 or 2 General Electric CF6-80C2A5F (A300F4-605R)

(FAA Data Sheet E13NE)

or

2 Pratt & Whitney PW 4158 (A300F4-622R) (FAA Data Sheet E24NE)

APU. Airesearch GTCP 331-250 (Specification 31-2891)

<u>Fuel.</u> (a) The following fuels are eligible for engines and APU:

MIL-T-5624H Grades JP-4 or JP-5

AST-MD-1655-65T Grades Jet A1 (JP-1) and Jet B AST-ES-2-74 Grades Jet A, A1 and Jet B

French specifications are:

Air 3404 Air 3407 Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engines and APU:
 - (1) PHILLIPS PFA-55MB or anti-icing additive to specifications MIL-I-278686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.

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X. A300 F4-600R Series (A300F4-605R approved April 27, 1994, A300F4-622R approved July 14, 2000) (cont'd) (a) The following oils are eligible for the CF6-80C2A5/CF6-80C2A5F and PW 4158 Oil. engines respectively:

- Synthetic type conforming to GE specifications D50TF1, Classes A or B. (GE Service Bulletin No. 79-1 lists approved brand oils.)
- Synthetic type conforming to PW specification 521C (PW Service Bulletin No. 238 lists approved brand oils).
- (b) The following oil is eligible for the APU: See Maintenance Manual AIRESEARCH GTCP 331-250, Chapter 49.21.00 Table 2.

Engine Limits.

	GENERAL ELECTRIC CF6-80C2A5 or CF6-80C2A5F	PRATT & WHITNEY PW 4158
Static Thrust, Sea Level		
Takeoff (5 min-up to 87°F)	60,100 lb.	58,000 lb.
Maximum Continuous (up to 87°F)	56,210 lb.	49,580 lb.
Maximum Permissible Engine Rotor Operating Speeds		
N1 (Low compressor)	3,854 rpm (117.5%)	4,012 rpm (111.4%)
N2 (High compressor)	10,055 rpm (112.5%)	10,450 rpm (105.5%)
Maximum Permissible Engine Temperature	(112.370)	(103.370)
(Turbine exhaust temperature at turbine outlet)		
Takeoff (5 min)	960℃	650°C
Acceleration (2 min)	-	650°C
Maximum Continuous	925℃	625°C
Starting		
o up to 40 sec	870°C	535°C
° above 40 sec	750°C	535°C
Oil Maximum Permissible Outlet Temperature		
Continuous Operation	160°C	163°C
Transient operation		
° Limited to 15 min. ° Limited to 20 min.	175°C	- 177°C

APU Limits. - Power rating maximum at sea level: 98.5 KW - Maximum operating speed: 43,562 rpm

- Maximum gas temperature at turbine outlet: 585°C

X. A300 F4-600R Series (A300F4-605R approved April 27, 1994, A300F4-622R approved July 14, 2000) (cont'd) Airspeed Limit (IAS).

	BASIC MODEL	VARIANT 06	VARIANT 09
MAXIMUM OPERATING MACH MMO	0.82	0.82	0.82
MAXIMUM OPERATING SPEED VMO (Kt)	335	335	335

 ${
m V}_{
m A}$ (Maneuvering speed): refer to DGAC-approved FAA Airplane Flight Manual Chapter 2.03.

 V_{FE}

SLATS (°)	FLAPS (°)	VFE (kt)
15	0	250
15	15	215
15	20	205
30	40	175

 V_{LE} Landing gear extended270 Kt or M=0.59

 $V_{\mbox{MC}}$ (Minimum control speed with the critical engine inoperative)

	A300F4-605R	A300F4-622R
Inflight – VMCA	117 KCAS	111 KCAS
Take off – VMCG	115.5 KCAS	109.5 KCAS

Tire Speed Limit (Ground speed limit): 195.5 KCAS (225 mph)

C.G. Range.

For C.G. envelopes, see approved flight manual.

Maximum Weights.

	BASIC MODEL		VARIA	VARIANT 06*		09*
	kg	Lb	kg	lb	kg	lb
Taxi Weight	171,400	377,930	166,000	365,960	168,900	372,360
Take-off	170,500	375,890	165,100	363,980	168,000	370,375
Weight						
Landing	140,000	308,650	140,600	303,970	143,300	315,900
Weight						
Zero Fuel	130,000	286,600	133,800	294,980	136,500	300,930
Weight						

*With trim and center fuel tanks deactivated

Variant 06: With modification 10395 for A300F4-605R Variant 09: With modification 12199 for A300F4-622R

Minimum Flight Weight. 90,000 kg (198,410 lb)

Minimum Crew. For all flights: 2 pilots

Maximum Passengers. Six (6) persons on the main deck per Exemption 5864 or four (4) persons on the main

deck per Exemption No. 7260. (see certification basis paragraph (g) for applicability and

details)

Maximum Baggage. Lower Forward compartment - Maximum load: 40,800 lbs

Lower Aft compartment - Maximum load:28,300 lbsLower Bulk compartment - Maximum load:6,110 lbsMain Deck Cargo compartment - Maximum load:100,970 lbs

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X. A300 F4-600R Series (A300F4-605R approved April 27, 1994, A300F4-622R approved July 14, 2000) (cont'd)

Fuel Capacity.

Location	(Usable fuel 6.67	Arm	
	(lb) (US gal)		(inches)
Outboard Tanks	9,260	2,450	1325.99
Inboard Tanks	35,140	9,280	1158.27
Center Tanks	17,600	4,650	1102.68
Trim Tank	6,150	1,625	2182.56
TOTAL	68,150	18,005	1259.46

Fuel Management. Fuel must be loaded symmetrically in outboard tanks first; fuel must be

used from inboard tank first. If cargo is symmetrically loaded, maximum allowable wing fuel asymmetry is 4,410 lb. In cases of asymmetrical loading configurations,

reference must be made to Weight and Balance Manual.

Oil Capacity. GE CF6-80C2A5 and GE CF6-80C2A5F:

Engine Oil Capacity 25.02 lb/engine usable (at 8.1 lb/gal) with engine

moment arm 965.15 inches.

PW 4158:

Engine Oil Capacity 28.44 lb/engine usable fuel (at 8.1 lb/gal) with engine moment arm

1023.8 inches.

Maximum Operating Altitude. 40,000 ft (Basic model)

35,000 ft (Variant 06) 35,000 ft (Variant 09)

Equipment. The basic required equipment as prescribed in the applicable Federal

Aviation Regulations must be installed in the aircraft. Airbus Equipment Lists, as revised, identify all required equipment and all optional equipment approved by the

Direction Generale de l'Aviation Civile (D.G.A.C.) of France:

- 00X00009102/C3S for A300F4-605R

- 00X00009622/C3S for A300F4-622R

In addition, the following is required:

DGAC-Approved FAA Airplane Flight Manual AI/ST-F3000.

Other Information. See "Data Pertinent to all A300B4-600, A300B4-600R and A300F4-600R Models".

DATA PERTINENT TO ALL A300 B4-600, A300 B4-600R AND A300 F4-600R SERIES.

<u>Datum.</u> Station 0 (251.26 inches forward of fuselage nose)

MAC. 260.16 inches (leading edge of MAC: Sta. 1116.06 inches).

<u>Leveling Means.</u> Clinometer on the cabin seat track rails.

Serial Numbers Eligible. A French "Certificate de Navigabilite pour Exportation" endorsed as noted under "Import

Requirements" must be submitted for each individual aircraft for which application for

U.S. certification is made.

Import Requirements.

An FAA Standard Airworthiness Certificate may be issued on the basis of a French "Certificate de Navigabilite pour Exportation" signed by a representative of the Direction Generale de 'Aviation Civile (D.G.A.C.) of France, containing the following statement: "The airplane covered by this certificate has been examined, tested and found to conform to the type design approved under FAA Type Certificate No. A35EU and to be in condition for safe operation".

Certification Basis.

(a) For all A300 B4-600, A300 B4-600R and A300 F4-600R series airplanes, the certification basis is FAR Part 25 at the following amendments:

Amendment 1 through 21

Amendment 22 through 44 (elected) except for,

25.301 Amendment 23.

25.305(d) Amendment 23,

25.331(a)(2) Amendment 23,

25.109 Amendment 42;

Amendment 46 (Elected for paragraph 25.803(c), (d) and

25.809(f)(1)(iv)(v);

Amendment 47 (Elected) for paragraph 25.809(f) (1) (iii);

Amendment 49 (Elected) for paragraph 25.733;

Amendment 54 (Elected) for paragraph 25.365(e)(i) and (e)(2).

Additional later amendment Part 25 FARs for Models A300F4-605R and A300F4-622R:

Amendment 54 (Elected) for paragraph 25.365(e)(3);

Amendment 54 for paragraph 25.858;

Amendment 72 (Elected) for paragraph 25.723;

Amendment 72 for paragraph 25.783;

Amendment 74 for paragraph 25.851(a)(3).

Model A300F4-622R airplanes incorporating modifications for Main Deck Cargo Compartment Rearrangement (modifications 12047, 12048, 12049, 12054, 12055, 12063, 12103, 12118, 12139, 12194, 12227). For parts of the airplane that are changed or affected by these modifications, the certification basis includes the following later amendment Part 25 FARs:

Amendment 86 for FAR Part 25 §§ 25.305, 25.321, 25.333, 25.341, 25.349 Amendment 91 for FAR Part 25 §§ 25.331, 25.335, 25.351, 25.473, 25.479, 25.481, 25.483, 25.485, 25.491

Amendment 91 for FAR Part 25 § 25.561 applicable to modified parts

 $(L\hbox{-shaped barrier, supernumerary seats and attachments})$

Amendment 86 for FAR Part 25 § 25.571 for modified parts

Amendment 83 for FAR Part 25 $\$ 25.853(a), (b) and (c)

Amendment 51 for FAR Part 25 § 25.787

Amendment 93 for FAR Part 25 §§ 25.855, 25.857, 25.858

Amendment 64 for FAR Part 25 § 25.561 for cockpit seats

Note: FAR paragraphs at amendment 25-86 and 25-91 are revised by Vf definition used for the earlier FAA certified freighter, the A300F4-605R, through application of FAA issue paper A-101, dated May 18, 2000)

See also pargraph (g) for the exemption applicable to A300F4-622R airplanes with the above modifications incorporated.

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Model A300F4-622R airplanes incorporating modifications for Lower Deck Cargo Compartment Rearrangement (modifications 12046, 12133, 12183). For parts of the airplane that are changed or affected by these modifications, the certification basis includes the following later amendment Part 25 FARs:

Amendment 86 for FAR Part 25 §§ 25.305, 25.321, 25.333, 25.341, 25.349 Amendment 91 for FAR Part 25 §§ 25.331, 25.335, 25.351, 25.473, 25.479, 25.481, 25.483, 25.485, 25.491 Amendment 86 for FAR Part 25 § 25.571 for modified parts Amendment 83 for FAR Part 25 §§ 25.853(a), (b) and (c) Amendment 51 for FAR Part 25 § 25.787 Amendment 93 for FAR Part 25 §§ 25.855, 25.857, 25.858

Note: FAR paragraphs at amendment 25-86 and 25-91 are revised by Vf definition used for the earlier FAA certified freighter, the A300F4-605R, through application of FAA issue paper A-101, dated May 18, 2000)

Model A300F4-622R airplanes incorporating modifications for Weight Variant 09 (Modifications 12050, 12102, 12181, 12199). For parts of the airplane that are changed or affected by these modifications, the certification basis includes the following later amendment Part 25 FARs:

Amendment 86 for FAR Part 25 §§ 25.305, 25.321, 25.333, 25.341, 25.349 Amendment 91 for FAR Part 25 §§ 25.331, 25.335, 25.351, 25.473, 25.479, 25.481, 25.483, 25.485, 25.491

Note: FAR paragraphs at amendment 25-86 and 25-91 are revised by Vf definition used for the earlier FAA certified freighter, the A300F4-605R, through application of FAA issue paper A-101, dated May 18, 2000)

(b) For precision approach and landing, the applicable technical requirements are complemented by AC 120-29 and AC 120-28C. For airplanes equipped with modification 12210, the applicable guidance material is AC 120-28D.

For the automatic flight control system, the applicable technical requirements are complemented by AC 20-57A for automatic landing and by AC 25.1329-1A for cruise.

- (c) FAR Part 36
- (d) ICAO Annex 16, Vol II, Aircraft Engine Emissions (fuel venting requirements).
- (e) Compliance with the following optional requirements has been established: Ditching provisions FAR 25.801 Ice Protection Provisions FAR 25.1419.
- (f) Special Conditions:

For the Model A300F4-605R and A300F4-622R: FAA Special Condition as published in the Federal Register 17 June 1987 on lightning protection, protection from unwanted effects of radio frequency energy, and the propulsion control system.

(g) Exemptions:

For the Model A300F4-605R:

Exemption granted in accordance with FAR 11 from FAR Part 25: No. 5864 dated March 30, 1994, allows carriage of a maximum of six (6) non-

crewmembers between the flight deck and the main deck class E cargo compartment. These 6 non-crewmembers are in addition to the maximum 4 flight deck occupants for a total of 10 occupants.

For the Model A300F4-622R incorporating modifications for Main Deck Cargo Compartment Rearrangement (modifications 12047, 12048, 12049, 12054, 12055, 12063, 12103, 12118, 12139, 12194, 12227):

Exemption granted in accordance with FAR 11 from FAR Part 25: No. 7260 dated June 30, 2000, allows carriage of a maximum of four (4) non-crewmembers in the courier area on the main deck. These 4 non-crewmembers are in addition to the maximum 3 flight deck occupants for a total of 7 occupants.

(h) Equivalent Safety Findings exist with respect to the following FARs: FAR part 25 § 25.841(b)(6) Amendment 38 applicable to A300F4-622R airplanes with the modification 12210 and 12211 incorporated.

FAR part 25 § 25.933(a) Amendment 40 applicable to model A300-600/A310 airplanes equipped with Pratt&Whitney engines and modifications 12262, 12263 and 12265 installed (Thrust Reverser Third Line of Defense).

Service Information.

All Airbus Service Bulletins will be DGAC approved and will carry a statement to that effect. This statement may be interpreted as "FAA Approved." All Service Bulletins that are subject to a Consigne de Navigabilite of the DGAC will carry a statement to that effect.

The Structural Repair Manual (reference D SRM CP.001) is DGAC approved and carries a statement to that effect. This statement is to be interpreted as constituting FAA approval.

Other available service documents for the Airbus include:

- (1) Illustrated Parts Catalog
- (2) Wiring Diagram Manual
- (3) Maintenance Manual

NOTES (A300B4-600/A300B4-600R/A300F4-600R)

Note 1 - Weight and Balance

(a) Current weight and balance report including list of equipment, entitled "Aircraft Inspection Report," included in certificated empty weight, and loading instructions, must be in each aircraft at the time of original certification and at all times thereafter except in the case of operators having an approved weight control system. Airbus Report, "Weight and Balance Manual," contains loading information for each airplane and interior arrangement configuration as delivered. This report contains, or refers to, information relative to location of all passengers and crew member seats, location and capacity of all cargo and baggage compartments, buffets, storage spaces and coat rooms, location and capacity of lounges, lavatories, and the required placards in the passenger compartment.

NOTE 1

- (b) The airplane must be loaded so that the C.G. is within specified limits at all times, considering fuel loading and usage, gear retraction and movement of crew and passengers from their assigned positions.
- (c) The weights of system fuel and oil, as defined below and hydraulic fluid, all of which must be included in the airplane empty weight, are listed for each airplane in the Weight and Balance Manual specified in paragraph (a) above.

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- (d) System fuel is the weight of all fuel required to fill all lines and tanks up to the zero-fuel point on the fuel gauges in the most critical flight attitude, including the unusable tank fuel as defined by FAR Part 26.959. (The usable fuel in the crossfeed manifold lines, manifolds and engine, that is not part of the system fuel, must be included in the total usable fuel to obtain correct weight and C.G. for takeoff).
- (e) The unusable fuel is that amount of fuel in the tanks which is unavailable to the engines under critical flight conditions as defined in FAA Part 25.959. This "unusable" fuel is included in System Fuel as indicated in (d) above and need not be accounted for separately.
- (f) System oil is the weight of oil remaining in the engine, constant speed drive, lines and tanks after subtracting the oil in the tanks which is above the standpipe (zero gauge) levels. The engine oil capacities shown elsewhere in this data sheet includes only the usable oil for which the tanks must be placarded.

The aircraft must be operated in accordance with the DGAC-approved FAA Airplane Flight Manual. ("DGAC approved" is considered equivalent to "FAA approved").

Instructions for Continued Airworthiness:

- Service Life Limits are provided in the DGAC approved Chapter 05-11-00 of the A300-600 Aircraft Maintenance Manual (AMM), approved by the DAGAC.
- Maintenance Tasks to comply with Certification Maintenance Requirements (CMR's) are listed in the A300-600 DGAC approved Airbus document ST5/829/85, which is included as appendix 1 of the Maintenance Review Board Report.
- Mandatory structural inspections (Airworthiness Limitations Items) for Model A300-600 series aircraft are quoted in the March 2000 issue of the A300-600 Maintenance Review Board Report Appendix 1. Additional inspections are detailed in DGAC approved Airbus document SE-M2/95A.0757/98 Issue 4, dated June 2000.

The A300 B4-600 basic definition for US Import Certification is contained in document A1/EA-A No. 413-347/88. The A300B4-600R basic definition for US Import Certification is contained in document A1/EA-A No. 413-346/88.

The A300F4-605R basic definition for US Import Certification is contained in document AI/EA-T 414-0326/94.

The A300F4-622R basic definition for US Import Certification is contained in document AI/EA-N 415-1229/00 issue 2, dated July 7, 2000.

ETOPS: The type design reliability and performance of the following airframe-engine combinations have been evaluated in accordance with AC120-42A and found suitable for (180 minute maximum diversion time) Extended Range Operations with the incorporation of the corresponding approved airplane configuration CMP document listed below:

A300B4-605R: AI/EA3001, Revision 3, approved July 27, 1990 A300F4-605R: AI/EA3001, Revision 4, approved Sept. 15, 1995 A300F4-622R: AI/EA3001, Revision 5, approved July 14, 2000

This finding does not constitute approval to conduct extended range operations.

NOTE 2.

NOTE 3.

NOTE 4.

NOTE 5.

XI. A310-200 Series (A310-221, A310-222 and A310-203 approved February 21, 1985, A310-204 approved January 8, 2001) Transport Aircraft.

Engines.

- 2 Pratt & Whitney JT90-7R4D1 (A310-221) (FAA Data Sheet E3NE),
- 2 Pratt & Whitney JT9D-7R4E1 (A310-222) (FAA Data Sheet E3NE),
- 2 General Electric CF6-80A3 (A310-203) (FAA Data Sheet E13NE),
- 2 General Electric CF6-80C2A2 (A310-204) (FAA Data Sheet E13NE).

APU.

Airesearch GTCP 331-250(F) (Specification 31-2891)

Fuel.

(a) The following fuels are eligible for engines and APU:

MIL-T-5624H Grades JP-4 or JP-5

AST-MD-1655-65T Grades Jet A1 (JP-1) and Jet B AST-ES-2-74 Grades Jet A, A1 and Jet B

GOST 10227-86 Grade TS-1 GOST 10227-86 Grade RT-1

French specifications are:

Air 3404 Air 3407

Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- (1) Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engines and APU:
 - Philips PFA-55MB or anti-icing additive to specifications
 MIL-I-278686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.
 - (4) For Pratt & Whitney engines following additives may be used in RT or TS-1 fuel grades:

I and I-M

TGF and TGF-M

(a) The following oils are eligible for the CF6-80A3 engine and for the JT9D-7R4D1/E1 engines, respectively.

Synthetic type conforming to GE specifications D50TF1,

Classes A or B. (GE Service Bulletin No. 79-1 lists approved brand oils.)

Synthetic type conforming to PW specification 521C (PW Service Bulletin No. 238 lists approved brand oils).

(b) The following oil is eligible for the APU: See Maintenance Manual AIRESEARCH GTCP 331-250, Chapter 49.21.00 Table 2.

Oil.

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XI. A310-200 Series (A310-221, A310-222, A310-203 and A310-204) (continued)

Engine Limits.

Engine Limits.				
	GENERAL	GENERAL	PRATT & WHITNEY	PRATT& WHITNEY
	ELECTRIC	ELECTRIC	JT90-7R4D1	JT9D-7R4E1
	CF6-80A3	CF6-80C2A2		
Static Thrust, Sea Level				
Takeoff (5 min-up to 87°F)	48,970 lb	52,460 lb	48,000 lb	50,000 lb
Max. Cont. (up to 87°F)	45,800 lb	48,080 lb	45,800 lb	47,500 lb
Max. Permissible Engine Rotor Operating Speeds				
N1 (Low compressor)	4,016 rpm (117%)	3,854 rpm (117.5%)	3,810rpm (105.8%)	3,810 rpm (105.8%)
N2 (High compressor)	10,859 rpm (110.5%)	11,055 rpm (112.5%)	8,000 rpm (102.5%)	8,000 rpm (102.5%)
Max. Permissible Engine Temperature	(110.570)	(112.370)	(102.370)	(102.370)
(Turbine exhaust temperature at turbine outlet)	940°C	960°C	625℃	635°C
Takeoff (5 min)	7.0 C	760 C	625°C	636°C
Acceleration (2 min)	895°C	925°C	600°C	610°C
Maximum Continuous				
Starting oup to 40 sec above 40 sec	870°C 750°C	870°C 750°C	535°C 535°C	535°C 535°C
Oil Max. Permissible Outlet Temperature	160°C	160°C	135°C	135℃
Continuous Operation	100 €	100 C	155 €	155 €
Transient operation ° Limited to 15 min. ° Limited to 20 min.	175°C	175°C	163°C	163°C

APU Limits.

- Power rating maximum at sea level:

98.5 KW

t- Maximum operating speed:

43,562 rpm

- Maximum gas temperature at turbine outlet:

585℃

XI. A310-200 Series (A310-221, A310-222, A310-203 and A310-204) (continued)

Airspeed Limits (IAS)

	BASIC MODEL VARIANT 01	VARIANT 04	VARIANT 101	VARIANT 104	VARIANT 107
MAXIMUM OPERATING MACH MMO	0.84	0.84	0.84	0.84	0.84
MAXIMUM OPERATING SPEED V _{MO} (Kt)	360*	340	360*	340	360*

 $[*]V_{\mbox{MO}} = 340$ Kt for A310-203 and -204 models with less than 2 tons fuel in one of the outer tanks.

 $\rm V_{\mbox{\scriptsize A}}$ (Maneuvering speed): refer to DGAC-approved FAA Airplane Flight Manual Chapter 2.03.

v_{FE}

SLATS (°)	FLAPS (°)	VFE (kt)
15	0	245
15	15	210
20	20	195
30	40	180

Gear retraction 270 Kt

Landing gear extended 270 Kt or M=0.59 V_{LE}

 $V_{\mbox{MC}}$ (Minimum control speed with the critical engine inoperative)

	A310-203	A310-204	A310-221	A310-222
Inflight - V _{MCA}	109 KCAS	115 KCAS	106 KCAS	109 KCAS
Take off - V _{MCG}	105 KCAS	111 KCAS	103 KCAS	105KCAS

Tire Speed Limit (Ground speed limit): 195.5 kt (225 mph)

C.G. Range.

For C.G. envelopes, see approved Flight Manual.

Maximum Weights.

	A310-203, A310-221 A310-222		A310-203, A310-221, A310-222			
	BASIC MODEL kg lb			ANT 01 od. 3703)	VARIA	ANT 04 od. 5124)
			kg	lb	kg	lb
Taxi Weight	132,900	292,991	139,500	307,542	142,900	315,037
Take-off Weight	132,000	291,007	138,600	305,558	142,000	313,053
Landing Weight	118,000	261,247	121,500	267,859	121,500	267,859
Zero Fuel Weight	108,500	239,201	111,500	245,813	111,500	245,813

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XI. A310-200 Series (A310-221, A310-222, A310-203 and A310-204) (continued)

	A310-204		A310-204		A310-204	
	VARIANT 101		VARIANT 104		VARIANT 107	
	(with Mod. 6527)		(with Mo	od. 6528)	(with Mods. 6527 and	
					12	90)
	kg	lb	kg	lb	kg	lb
Taxi Weight	139,500	307,500	142,900	315,000	134,900	297,450
Take-off Weight	138,600	305,600	142,000	313,100	134,000	295,470
Landing Weight	122,000	269,000	122,000	269,000	122,000	269,000
Zero Fuel Weight	112,000	246,960	112,000	246,960	112,000	246,960

Minimum Flight Weight. 80,000 kg (176,400lb).

Minimum Crew. For all flights: 2 pilots

Maximum Passengers. 265 or 255 when overwing exit is configured as a Type III. For seating arrangement

refer to AIRBUS specification TL 25/1110/74

Maximum Baggage. Forward compartment - Maximum load: 27,999 lbs

Aft compartment - Maximum load: 20,999 lbs Bulk compartment - Maximum load: 6,107 lbs

Fuel Capacity.

Location	(Usable fue	Arm	
	(lb)	(US gal)	(inches)
Outboard Tanks	13,220	1,979	1181.5
Inboard Tanks	49,300	7,384	1019.53
Center Tanks	34,680	5,194	963.3
TOTAL	97,200	14,557	1021.5

<u>Fuel Management.</u> Fuel must be loaded symmetrically in outboard tanks first; fuel must be

used from inboard tank first. Maximum allowable wing fuel

asymmetry is 4,410 lb.

Oil Capacity. GE Engine oil capacity 25.02 lb/engine usable (at 8.1 lb/gal) with engine mount arm

842.8 inches.

PW - Engine oil capacity 33.40 lb/engine usable (at 8.1 lb/gal) with engine moment arm

899.7 inches.

Maximum Operating Altitude. 41,000 ft.

Equipment. The basic required equipment as prescribed in the applicable Federal Aviation

Regulations must be installed in the aircraft. Airbus Equipment List AI/V-C 895/85 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In addition, the

following is required:

DGAC-Approved FAA Airplane Flight Manual.

Other Information. See "Data Pertinent to all A310 Models"

XII. A310-300 Series Transport Aircraft (A310-322 Approved June 10, 1987; A310-324 Approved June 10, 1987; A310-304 Approved February 12, 1988, A310-325 Approved March 22, 1996).

Engines.

- 2 Pratt and Whitney JT9D-7R4E1 (A310-322) (FAA Data Sheet E3NE) or
- 2 Pratt and Whitney PW 4152 (A310-324) (FAA Data Sheet E24NE) or
- 2 General Electric CF6-80C2A2 (A310-304) (FAA Data Sheet E-13NE)
- 2 Pratt and Whitney PW4156A (A310-325) (FAA Data Sheet E24NE)

APU.

Airesearch GTCP 331-250(H) (Specification 31-2891)

Fuel.

(a) The following fuels are eligible for engines and APU:

MIL-T-5624H Grades JP-4 or JP-5
AST-MD-1655-65T Grades Jet A1 (JP-1) and Jet B
GOST 10227-86 Grades TS-1

GOST 10227-86 Grades TS-GOST 10227-86 Grades RT

French specifications are:

Air 3404 Air 3407 Air 3405

With JP-4 or Jet B fuel, the following limitations apply:

- Maximum altitude of 15,000 ft with gravity fuel supply from inboard tanks.
- (2) Maximum altitude of 20,000 ft with gravity fuel supply from outboard tanks.
- (b) The following additives may be used in approved fuels for engines and APU:
 - Philips PFA-55MB or anti-icing additive to specifications MIL-I-278686 E at a concentration not in excess of 0.15 percent by volume.
 - (2) Sohio Biobor JF biocide additive at a concentration not in excess of 20 ppm elemental boron (270 ppm total additive).
 - (3) Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units which is approximately equivalent to one ppm.
 - (4) For Pratt & Whitney engines and APU, the following additives may be used in RT or TS-1 fuel grades: anti-ice additives 1 and 1-M TGF and TGF-M
- (a) The following oils are eligible for the CF6-80C2A2 engines, for the PW JT9D-7R4E1 and for the PW 4152 and PW 4156A engines respectively:

Synthetic type conforming to GE specification D50TF1, (GE Service Bulletin No. 79-1 lists approved brand oils.)

Synthetic type conforming to PW specification 521C (PW Service Bulletin No. 238 lists approved brand oils).

Oil.

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XII. A310-300 Series (A310-322, A310-324, A310-304, A310-325) (continued)

(b) The following oil is eligible for the APU:

See Maintenance Manual AIRESEARCH GTCP 331-250,
Chapter 49.21.00 Table 2.

Engine Limits.

Engine Limits.	PRATT AND WHITNEY	PRATT AND WHITNEY	PRATT & WHITNEY	GENERAL ELECTRIC
	PW 4156A	PW 4152	JT9D-7R4E1	CF6-8C2A2
Static Thrust, Sea Level				
Takeoff (5 min-up to 87°F)	56,000 lb	52,000 lb	50,000 lb	52,460 lb
Max. Cont. (up to 87°F)	49,200 lb	49,200 lb	47,500 lb	48,080 lb
Max. Permissible Engine Rotor Operating Speeds				
N1 (Low compressor)	4,012 rpm (111.4%)	4,012 rpm (111.4%)	3,810rpm (105.8%)	3,854 rpm (117.5%)
N2 (High compressor)	10,450 rpm (105.5%)	10,300 rpm (104%)	8,000 rpm (102.5%)	11,055 rpm (112.5%)
Max. Permissible Engine Temperature	(130.10 ///)	(23 1/6)	(2021670)	(11218/8)
(Turbine exhaust temperature at turbine outlet)				
Takeoff (5 min)	650°C	625°C	635°C	960°C
Acceleration (2 min)	650°C	625°C	635°C	
Maximum Continuous	625°C	600°C	610°C	925℃
Starting oup to 40 sec above 40 sec	535°C 535°C	510°C 510°C	535°C 535°C	870°C 750°C
Oil Max. Permissible Outlet Temperature				
Continuous Operation	163°C	163°C	135℃	160°C
Transient operation output Limited to 15 min. Limited to 20 min.	177°C	177°C	163℃	175℃

APU Limits.

- Power rating maximum at sea level:

98.5 KW

- Maximum operating speed:

43,562 rpm

- Maximum gas temperature at turbine outlet:

585°C

XII. A310-300 Series (A310-322, A310-324, A310-304, A310-325) (continued)

Airspeed Limits (IAS)

	BASIC MODEL	VARIANT 08
		VARIANT 01 VARIANT 05
MAXIMUM OPERATING MACH M _{MO}	0.84	0.84
MAYIMIN ODED ATTNO ODED W	260	240
MAXIMUM OPERATING SPEED V _{MO} (Kt)	360	340
MAXIMUM OPERATING SPEED V _{MO} (Kt)	360	340

 V_A (Maneuvering speed): refer to DGAC-approved FAA Airplane Flight Manual Chapter 2.03.

v_{FE}

SLATS (°)	FLAPS (°)	VFE (kt)
15	0	245
15	15	210
20	20	195
40	40	180

 $\begin{array}{l} V_{LO} \\ \text{Gear extension} \dots \dots 270 \text{ Kt} \end{array}$ Gear retraction 270 Kt

Landing gear extended 270 Kt or M=0.9 V_{LE}

 $V_{\mbox{MC}}$ (Minimum control speed with the critical engine inoperative)

	A310-322	A310-324	A310-304	A310-325
Inflight - V _{MC}	109 KCAS	115 KCAS	115.5 KCAS	121 KCAS (*)
Take off - V	105 KCAS	111 KCAS	111 KCAS	117 KCAS
Take off - V _{MCG}	103 KCAS	III KCAS	III KCAS	11/ KCAS

(*) Values at Zp = 0 ft. m the AFM, these values are scheduled with altitude.

Tire Speed Limit (Ground speed limit): 195.5 kt (255 mph)

C.G. Range.

For C.G. envelopes, see approved Flight Manual.

Maximum Weights.

		SIC DEL	VARIA (with Mo	NT 01 d. 5616)	VARIA (with Mo		VARIA (with Mod. for model A	8130, only
	kg	lb	kg	lb	kg	lb	kg	Lb
Taxi Weight	150,900	332,735	153,900	339,350	157,900	348,170	164,900	363,604
Take-off Weight	150,000	330,750	153,000	337,365	157,000	346,185	164,000	361,620
Landing Weight	123,000	271,215	123,000	271,215	124,000	273,420	124,000	273,420
Zero Fuel Weight	113,000	249,165	113,000	249,165	114,000	251,370	114,000	251,370

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XII. A310-300 Series (A310-322, A310-324, A310-304, A310-325) (continued)

Minimum Flight Weight. 80,000 kg. (176,400 lb)

Minimum Crew. For all flights: 2 pilots

Maximum Passengers. 265 - For seating arrangement refer to AIRBUS

specification TL 25/1110/74

Maximum Baggage. Forward compartment - Maximum load: 27,999 lbs

> Aft compartment - Maximum load: 20,999 lbs Bulk compartment - Maximum load: 6,107 lbs

Fuel Capacity.

Location	(Usable fue	Arm	
	(lb)	(US gal)	(inches)
Outboard Tanks	13,051	1,955	1181.1
Inboard Tanks	49,209	7,371	1018.9
Center Tanks	34,642	5,189	963.3
Trim Tank	10,848	1,625	1890.5
TOTAL	107,750	16,140	1108.4

Fuel Management. Fuel must be loaded symmetrically in outboard tanks first; fuel must be used from

inboard tank first. Maximum allowable wing fuel asymmetry is 4,410 lb.

Oil Capacity. PW - JT9D-7R4E1 - Engine oil capacity 33.40 lb/engine usable (at 8.1 lb/gal) with

engine moment arm 899.7 inches.

PW 4152 and PW 4156A - Engine oil capacity 28.44 lb/engines usable (at 8.1 lb gal)

with engine moment arm 900.24 inches.

GE CF6-80C2A2 - Engine oil capacity 25.02 lb/engine usable (at 8.1 lb/gal) with engine

moment arm 840.4 inches.

Maximum Operating Altitude. 41,000 ft.

Equipment. The basic required equipment as prescribed in the applicable Federal Aviation

Regulations must be installed in the aircraft. Airbus Equipment List Document A1/EA-A No. 413.601/87 as revised identifies all required equipment and all optional equipment approved by the Direction General de l'Aviation Civile (D.G.A.C.) of France. In

addition, the following is required:

DGAC-Approved FAA Airplane Flight Manual.

See "Data Pertinent to all A310 Models" Other Information.

DATA PERTINENT TO ALL A310 MODELS

Datum. Station 0 (251.26 inches forward of fuselage nose)

MAC. 229.48 inches (leading edge of MAC: Sta. 992)

Leveling Means. Clinometer on the cabin seat track rails.

A French "Certificate de Navigabilite pour Exportation" endorsed as noted under "Import Serial Numbers Eligible.

Requirements" must be submitted for each individual aircraft for which application for

U.S. certification is made.

Import Requirements. An FAA Standard Airworthiness Certificate may be issued on the basis of a French

"Certificate de Navigabilite pour Exportation" signed by a representative of the Direction

Generale de 'Aviation Civile (D.G.A.C.) of France, containing the following statement:

"The airplane covered by this certificate has been examined, tested and found to conform to the type design approved under Type Certificate No. A35EU and to be in

condition for safe operation".

Certification Basis.

(a) FAR Part 25: Amendment 1 through 21 Basic;

Amendment 22 through 45 (elected) except for 25.109 and 25.631;

Amendment 46 (elected) for paragraph 25.803, and 25.809(f)(1)(v);

Amendment 47 (elected) for paragraph 25-809(f)(1)(iii);

Amendment 49 (elected) for paragraph 25.733;

Amendment 54 (elected) for paragraph 25.365(e)(1) and (e)(2).

For the A310-300 series and the Model A310-204 (vertical stabilizer only): FAR 25.631, Amendment 25-23 is included in the above certification basis.

(b) For precision approach and landing, the applicable technical requirements are complemented by AC 120-29 and AC 120-28C.

For the automatic flight control system, the applicable technical requirements are complemented by AC 20-57A for automatic landing and by AC 25.1329-1A for cruise.

- (c) ICAO Annex 16, Vol II, Aircraft Engine Emissions (fuel venting requirements).
- (d) Compliance with the following optional requirements has been established:

Ditching provisions FAR 25.801 Ice Protection Provisions FAR 25.1419.

- (e) An equivalent level of safety was found for FAR 25.813(c), 25.807 and 25.809 through A310 issue paper CI-3. This finding is applicable to both the A310-200 and A310-300 series.
- (f) An equivalent level of safety was found for FAR 25.173(c) and 25.175(c) through A310 issue paper F-1. This finding is applicable to both the A310-200 and A310-300 series.
- (g) For the A310-200 series: The French/German complementary conditions (DGAC letter 53781).
- (h) Aircraft Noise:
 - For the A310-200 series (except the Model A310-204): FAR Part 36 through Amendment 36-12.
 - For the Model A310-204: FAR Part 36 through Amendment 36-22.

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- (i) For the A310-300 model: FAA Special Conditions for the A310-300 published in the Federal Register 17 June 1987 on lightning protection, protection from unwanted effects of radio frequency energy, and the propulsion control system.
- (i) For the A310-300 model: Environmental Standards:
 - (1) FAR Part 36 through Amendment 36-12
 - (2) SFAR 27-5

Service Information.

All Airbus Service Bulletins will be DGAC approved and will carry a statement to that effect. This statement may be interpreted as "FAA Approved." All Service Bulletins that are subject to a Consigne de Navigabilite of the DGAC will carry a statement to that effect.

The Structural Repair Manual and its revision are DGAC approved and carry a statement of DGAC approval. That statement is to be interpreted as constituting FAA approval. Other available service documents for the Airbus include:

- (1) Illustrated Parts Catalog
- (2) Wiring Diagram Manual
- (3) Maintenance Manual

NOTES.

Note 1 - Weight and Balance

- (a) Current weight and balance report including list of equipment, entitled "Aircraft Inspection Report," included in certificated empty weight, and loading instructions, must be in each aircraft at the time of original certification and at all times thereafter except in the case of operators having an approved weight control system. Airbus Report, "Weight and Balance Manual," contains loading information for each airplane and interior arrangement configuration as delivered. This report contains, or refers to, information relative to location of all passengers and crew member seats, location and capacity of all cargo and baggage compartments, buffets, storage spaces and coat rooms, location and capacity of lounges, lavatories, and the required placards in the passenger compartment.
- (b) The airplane must be loaded so that the C.G. is within specified limits at all times, considering fuel loading and usage, gear retraction and movement of crew and passengers from their assigned positions.
- (c) The weights of system fuel and oil, as defined below, and hydraulic fluid, all of which must be included in the airplane empty weight, are listed for each airplane in the Weight and Balance Manual specified in paragraph (a) above.
- (d) System fuel is the weight of all fuel required to fill all lines and tanks up to the zero-fuel point on the fuel gages in the most critical flight attitude, including the unusable tank fuel as defined by FAR Part 26.959. (The usable fuel in the crossfeed manifold lines, manifolds, and engine that is not part of the system fuel, must be included in the total usable fuel to obtain correct weight and C.G. for takeoff).
- (e) The unusable fuel is that amount of fuel in the tanks which is unavailable to the engines under critical flight conditions as defined in FAR Part 25.959. This "unusable" fuel is included in System Fuel as indicated in (d) above and need not be accounted for separately.
- (f) System oil is the weight of oil remaining in the engine, constant speed drive, lines and tanks after subtracting the oil in the tanks which is above the standpipe (zero gauge) levels. The engine oil capacities shown elsewhere in this data sheet includes only the usable oil for which the tanks must be placarded.

NOTE 2.

The aircraft must be operated in accordance with the DGAC-approved FAA Airplane Flight Manual. ("DGAC approved" is considered equivalent to "FAA approved").

NOTE 3.

Service Life Limits for the A310-200 and A310-300 series are provided in the DGAC approved Chapter 05-11-00 of the A310 Aircraft Maintenance Manual.

Mandatory structural inspections (Airworthiness Limitations) for the A310-200 and A310-300 series are quoted in the DGAC approved Airbus document AI/ST5/849/85, Section 2.

NOTE 4.

Cabin Equipment: Seats and galleys must be designed in accordance with AIRBUS specifications: TL 25/1110/74 and TL 25/1109/74.

NOTE 5.

If modifications 4941, 5502, 5429, 5428, 5757, 5953 are embodied, the aircraft is certificated for Category III precision approach (fail operational system).

NOTE 6.

The A310-200 series basic definition for U.S. import certification, except Model A310-204, is contained Document AI/V-C131/85. The Model A310-204 basic definition for U.S. import certification is contained Document AI/EA-N No. 415.2342/00.

The A310-300 basic definition for U.S. import certification is contained in Document AI/EA-A No. 948/86.

<u>NOTE 7.</u>

Mandatory systems related tasks (Certification Maintenance Requirements) for the A310-200 and A310-300 series are quoted in the DGAC approved Airbus document AI/ST5/849/85, Section 1.

NOTE 8.

ETOPS for the A310-221 and A310-222: The type design reliability and performance of these airframe-engine combinations has been evaluated in accordance with AC120-42A and found suitable for (180 minute maximum diversion time) Extended Range Operations with the incorporation of the corresponding approved airplane configuration CMP document (AI/EA3001, Revision 3, approved July 27, 1990 + TR approved Feb. 27, 1991). This finding does not constitute approval to conduct extended range operations.

ETOPS for the A310-324: The type design reliability and performance of these airframe-engine combinations has been evaluated in accordance with AC120-42A and found suitable for (120 minute maximum diversion time) Extended Range Operations with the incorporation of the corresponding approved airplane configuration CMP document (AI/EA3001, Revision 2, approved March 1, 1990). This finding does not constitute approval to conduct extended range operations.

NOTE 9.

Some airworthiness directives refer to Model A300 B4-600, B4-600R, and F4-600R series airplanes as "Model A300-600 series airplanes." The Model A300-600 is the common model designation. The phrase "Model A300 B4-600, B4-600R, and F4-600R series airplanes" collectively refers to Model A300B4-601, B4-603, B4-620, B4-605R, B4-622R, F4-605R, and F4-622R airplanes.

Additionally, some airworthiness directives refer to Model A300 B2 and B4 series airplanes simply as "Model A300" series airplanes. The phrase "Model A300 B2 and B4 series airplanes" collectively refers to Model A300 B2-1A, B2-1C, B4-2C, B2K-3C, B4-103, B2-203, and B4-203 airplanes.

Similarly, some airworthiness directives refer to Model A310-200 and A310-300 series airplanes as "Model A310 series airplanes," the common model designator. The phrase "Model A310-200 and A310-300 series airplanes" collectively refers to Model A310-221, 222, 203, 204, and Model A310-322, 324, 304, 325 airplanes.

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